

KENTUCKY TRANSPORTATION CENTER

College of Engineering

**TRANSPORTATION FINANCE:
KENTUCKY'S STRUCTURE AND
NATIONAL TRENDS**



UNIVERSITY OF KENTUCKY



UNIVERSITY OF KENTUCKY

College of Engineering
Kentucky Transportation Center

Our Mission

We provide services to the transportation community through research, technology transfer and education. We create and participate in partnerships to promote safe and effective transportation systems.

We Value...

Teamwork--Listening and Communicating, Along with Courtesy and Respect for Others
Honesty and Ethical Behavior
Delivering the Highest Quality Products and Services
Continuous Improvement in All That We Do

For more information or a complete publication list, contact us

KENTUCKY TRANSPORTATION CENTER

176 Raymond Building
University of Kentucky

(859) 257-4513
(859) 257-1815 (FAX)
1-800-432-0719
www.ktc.uky.edu
ktc@engr.uky.edu

Research Report
KTC-02-11/SPR 255-02-1F

**Transportation Finance: Kentucky's Structure
and National Trends**

By:

Merl Hackbart
Professor of Finance and Public Administration

Suzanne Perkins
Doctoral Student, Public Administration
Martin School of Public Administration

and

Mariam Fordham,
Doctoral Student, Public Administration
Martin School of Public Administration

Kentucky Transportation Center
College of Engineering
University of Kentucky
Lexington, Kentucky

in Cooperation with
Transportation Cabinet
Commonwealth of Kentucky

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the views or policies of the University of Kentucky, the Kentucky Transportation Cabinet, nor the Federal Highway Administration. This report does not constitute a standard, specification, or regulation. The inclusion of manufacturer names and trade names are for identification purpose and are not to be considered as endorsements.

May, 2002

TABLE OF CONTENTS

FOREWORD	ii
LIST OF TABLES	iv
LIST OF FIGURES	v
CHAPTER 1: KENTUCKY TRANSPORTATION FINANCE: AN OVERVIEW	1
1.1 Introduction	1
1.2 Looking Back: A Brief History of the Road Fund	1
1.3 Current Road Fund Composition	2
1.4 Motor Fuels Taxes	5
1.5 Motor Vehicle Usage Tax	6
1.6 Weight Distance Tax	8
1.7 Registration Fees	8
1.8 Other Revenue Sources	9
1.9 Federal Funds	10
1.10 Current State of the Road Fund	11
1.11 Road Fund Tax Changes in the Decade of the 1990s	11
1.12 Looking Forward: Tax Principles and Road Fund Tax Reform	13
1.13 Summary and Overview of Other Study Chapters	17
CHAPTER 2: ROAD FUND REVENUE CHANGES IN THE 1990s	20
2.1 Study Purpose	20
2.2 Study Design and Study Methodology	20
2.3 NCSL Data	21
2.4 State Survey Data	26
2.5 Summary	30
CHAPTER 3: KENTUCKY'S ROAD FUND TAX STRUCTURE AND EMERGING ISSUES	31
3.1 Kentucky's Road Fund Revenue Structure	31
3.2 Kentucky's Major Road Fund Revenue Sources: Status and Issues	32
3.3 Summary and Conclusions	52
CHAPTER 4: OBSERVATIONS AND SUGGESTIONS	54
4.1 Observations	54
4.2 Suggestions	56
APPENDIX A: SURVEY	60

Foreword

Studies of state Road Fund tax structures, like studies of state General Funds, tend to focus on a state's current tax structure compared to surrounding states and identifying possible tax changes that may make a tax system simpler, more equitable, more administratively efficient, more competitive or more "adequate." In conducting such analysis, the inherent trade-offs among these accepted tax principles becomes apparent. Efforts to increase competitiveness may impact the adequacy of a tax system. Likewise, tax legislation intended to enhance tax administration efficiency may impact the equity of a state's Road Fund tax structure. Such trade-offs associated with conflicting tax change or modernization goals has limited tax system changes or reforms.

The current study has two goals including: 1) an analysis of Road Fund tax changes that have been enacted by the 50 states during the past decade, and 2) an analysis of Kentucky's current Road Fund tax structure and tax collection system including the various multi-state tax collaborative efforts relied upon to insure the collection of taxes due the Commonwealth. The first objective focuses on reviewing Road Fund tax changes across the nation that may have implications for future Road Fund tax policy in Kentucky. The analysis of tax changes is based on information obtained from the National Conference of State Legislators (NCSL). It also benefited from a survey of Chief Financial Officers of State Transportation Departments regarding the goals of the enacted changes.

Road Fund tax collection processes are complicated due to the fact that commercial carriers routinely operate across state boundaries and "share" tax bases including taxes on fuels consumed and registration fees for commercial carriers among other common tax sources. As a result, coordinated assessment and collection efforts are necessary for the states to determine each state's fair share of the tax revenue generated by the transportation industry. These collaborative efforts are reviewed in this study.

As indicated, this study provides comparisons of Kentucky's Road Fund tax structure to surrounding states. Such comparisons indicate tax structural differences that may lead to competitive disadvantages (or advantages) for Kentucky businesses and corporations. In addition, the study attempts to identify fairness, simplicity, efficiency and adequacy issues associated with Kentucky's Road Fund tax structure. Provisions of Kentucky's Road Fund tax code that impair Kentucky's pursuit of a tax structure consistent with these tax principles may be candidates for change in the future.

Overall, this study was designed to provide policy makers and tax policy analysts with a comprehensive "primer" on Kentucky's current Road Fund tax structure and emerging tax issues. As such, it is intended to provide a starting point for future discussions of ways and means to insure the future adequacy of Kentucky's Road Fund while not diminishing the Road Fund tax structure's "compliance" with the other tax policy principles.

In the preparation of this study, the authors benefited from the support and assistance of several individuals from the Kentucky Revenue and Transportation Cabinets and the Governors Office of Economic Analysis. We specifically recognize the assistance of Debra Gabbard, Jim Roberts, J.W. Bryan, Romine Russell, Taylor Manley, Willie Payton, Steve Coffey, Tim Adams and Willie McCann of the Transportation Cabinet, Eddie Mattingly, Wyatt Gregory, Michael Grammer, Jim Oliver, and Eddie Mattingly of the Revenue Cabinet who served on special committees established to provide study assistance. Also, the support of Martha Armstrong, Bob Cox and Gene Brown of the Governors Office of Economic Analysis in editing and producing the final report is sincerely appreciated.

List of Tables

Table:	Page:
1-1 Road Fund Total Revenue and Total Tax Receipts	3
1-2 Motor Fuels Revenue	5
1-3 Motor Vehicle Usage Revenue	7
1-4 Weight Distance Tax/Surtax Revenue	8
1-5 Investment and Toll Road Revenue	9
1-6 Outstanding Road Fund Bonds by Fiscal Year	10
1-7 Federal Highway Trust Fund Revenue	10
1-8 Kentucky Road Fund Tax Changes- Decade of the 1990s	12
1-9 Income Elasticities of Funds and Revenue Sources	14
1-10 Contribution and Cost Responsibility of Kentucky Highway Users	16
1-11 Ratio of Contribution and Cost Responsibility of Kentucky Highway Users	16
1-12 Cost Responsibility of Kentucky Highway Users Over Time	17
3-1 Kentucky's Major Road Fund Tax Sources (FY91-FY00)	
3-2 Motor Fuel Tax Revenue by Source and Percent. Growth for the 1990s	33
3-3 Total Gasoline Tax Expenditures in FY00	36
3-4 Total Special Fuels Tax Expenditures in FY00	36
3-5 Motor Vehicle Usage Tax Revenues for the 1990s	42
3-6 Motor Vehicle Usage Tax Expenditures in FY00	43
3-7 Weight Distance Tax Revenues for the 1990s	46
3-8 Motor Vehicle Registration for the 1990s	47
3-9 Commercial Vehicle Registration Fee Structure	47
3-10 Motor Vehicle Operator's License Revenue for the 1990s	51

List of Figures

Figure:	Page:
1-1 Road Fund Tax Receipts Growth	3
1-2 Road Fund Revenue Growth	3
1-3 Road Fund Revenue Sources	3
1-4 Motor Fuels Revenue Growth	6
1-5 Motor Vehicle Usage Tax Growth	7
1-6 Weight Distance Revenue Growth	9
2-1 Changes by Tax or Fee 1990-1999	21
2-2 Total Changes By Impact on Revenues	22
2-3 Gasoline Tax Changes by Type and Impact	23
2-4 Diesel Tax Changes by Type and Impact	23
2-5 Special Fuel Tax Changes by Type and Impact	23
2-6 Registration, Title, and Driver's Lic. Fee Changes by Type and Impact	24
2-7 Usage Tax Changes by Type and Impact	24
2-8 Weight Distance Tax Changes by Type and Impact	24
2-9 Excise Tax Changes by Type and Impact	25
2-10 Total Tax Changes by Type and Impact	25
2-11 Permitted Use of Road Fund Revenues	26
2-12 Purpose of Motor Fuel Tax Changes for States	27
2-13 Purpose of Diesel Fuel Tax Changes for States	28
2-14 Purpose of Registration Fee Changes for States	28
2-15 Purpose of Weight Distance Tax Changes for States	29
2-16 Purpose of Sales Tax/Use Fee Changes for States	29
3-1 Gasoline Tax Increases: 1990-2000	34
3-2 Gasoline Tax Rates: 2000	39
3-3 Diesel Fuel Tax Rates: 2000	40
3-4 Usage or Sales Tax Rates: 2000	45
3-5 Vehicle Registration Fees: 1998	49
3-6 Commercial Registration Rates	50
3-7 Driver's License Fees for Selected States-2000	52

Chapter 1: Kentucky Transportation Finance: An Overview

Introduction

Kentucky established its Road Fund in 1914 to finance the maintenance, operation, and development of a statewide transportation system. The Road Fund, initially funded by special motor vehicle and property taxes, is now supported by a variety of taxes and fees including enhanced motor fuel taxes, driver's license fees, usage taxes, motor vehicle registration fees, special surtaxes and income received from tolls and the investment of Road Funds as well as other minor revenue sources. These "state funds" are supplemented with federal funds from the Federal Highway Trust Fund and the periodic issuance of bonds to provide needed transportation system financing.

In order to meet growing demands for an enhanced highway and road system, Kentucky has periodically increased motor fuel tax rates, and expanded the Road Fund tax and revenue base. Kentucky has also employed other measures to assure that sufficient funds were available to meet Kentucky's transportation system investment needs including the issuance of bonds. Recently, Kentucky, like other states, has faced financial challenges in meeting transportation system investment desires due to the relative slow growth of its Road Fund revenues. Road Fund growth concerns along with concerns regarding specific Road Fund taxes has prompted periodic reviews of Kentucky's Road Fund revenue structure and needs for Road Fund tax reform. This study is designed to provide additional perspectives for those discussions. It contributes to the Road Fund tax reform debate by providing a review of recent Road Fund tax and revenue changes of the other states and a detailed assessment of Kentucky's current Road Fund tax sources.

This chapter provides an overview of Kentucky's Road Fund and its revenue production performance over the past decade along with a summary of recent changes in Kentucky's major Road Fund tax and revenue sources. It also includes a section on "tax principles" which can provide guidance for the evaluation of Kentucky's current Road Fund tax structure. Tax principles can also provide guidance for possible changes and reforms which could make Kentucky's Road Fund structure more adequate, efficiently administered, equitable, simple, and competitive.

Looking Back: A Brief History of the Road Fund

Currently, Kentucky's "state-maintained" highway system comprises approximately 27,415 miles of the 73,360 miles of roads and streets in Kentucky. Prior to the establishment of a state Road Fund, financing of Kentucky's developing state road transportation system fell to a hodgepodge of state, county, and private sources. Confronted with the need to develop a coordinated program of road development, the Kentucky General Assembly established a state Road Fund in 1914. The fund consisted of a tax on motor vehicles and an additional five-cent tax on general property that was to be distributed to counties on a matching basis.

The growing prevalence of automobiles in the early part of the twentieth century called for better and more costly roads. In 1920, Kentucky passed a new road law in order to take advantage of the Federal Aid Road Act, which provided aid to states for highway construction. To provide additional revenue, the General Assembly also approved Kentucky's first gasoline tax at a rate of one cent per gallon. A system of primary highways was established that included county seat to county seat connections and north-south and east-west roads spanning the state.

Although a highway system was established, roads were often built without regard for actual traffic patterns and conditions. Recognizing the need for better planning of road construction, in 1936, the General Assembly earmarked a portion of the state Road Fund for construction of farm-to-market roads and to assist counties in their maintenance. A significant step was taken in 1945 when the state constitution was amended to prevent highway user taxes from being diverted to other purposes.

Successive legislatures expanded the program of county road assistance established in 1936, and in 1948, the motor fuels tax was raised two cents per gallon to finance rural and secondary roads. In 1950, the General Assembly passed legislation authorizing the Department of Highways to construct express or super-highways financed by turnpike revenue bonds payable from tolls. From its beginnings in 1914 to the present, Kentucky's Road Fund has been shaped by the ever-changing highway transportation needs of the Commonwealth.

Current Road Fund Composition

Road Fund Receipts

Table 1-1 presents the total Road Fund revenue and tax receipts for the state Fiscal Year 1991 (FY91) through FY00. The total Road Fund revenue includes (in addition to tax revenue) investment income, revenue from tolls, department fees, and miscellaneous minor revenues. Total Road Fund tax receipts include only those revenues from motor fuels taxes, motor vehicle usage taxes, registration and license fees, and Kentucky's weight distance tax. Federal funds are not included in the Road Fund total revenue or the Road Fund tax receipts display.

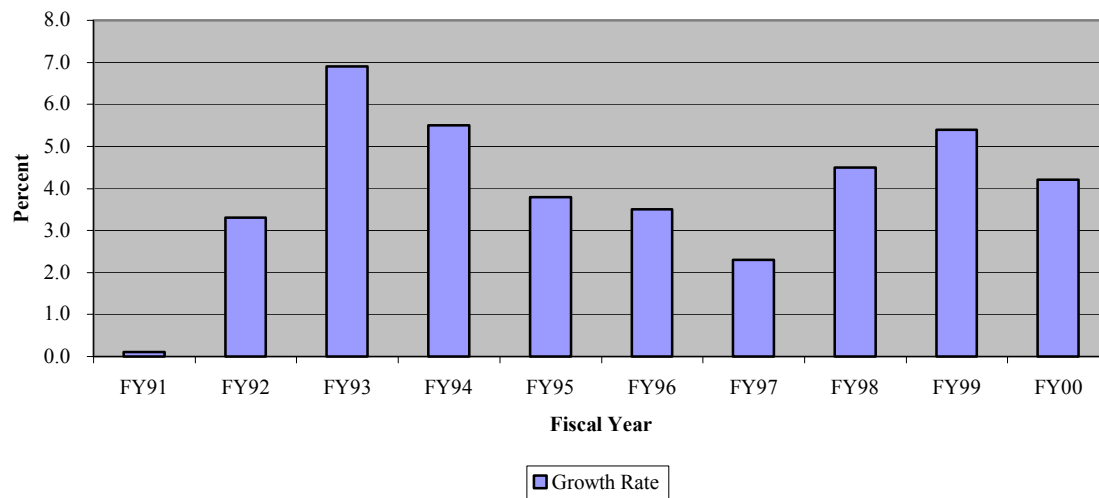
As Table 1-1 indicates, total revenue has increased over the years from \$765.6 million dollars in FY91 to \$1,090.8 million dollars in FY00. Total Road Fund tax receipts have increased from \$717.7 million dollars in FY91 to 1,055.3 million dollars in FY00. Although Road Fund revenues have increased, growth rates, shown in Figures 1-1 and 1-2, provide a clearer picture of the fluctuations and adequacy of Road Fund receipts. Also, Figure 1-3 graphically describes the contributions of various revenue sources to overall Kentucky Road revenue receipts. The average growth rate for the decade was 3.95 percent.

Table 1-1. Road Fund Total Revenue and Total Tax Receipts

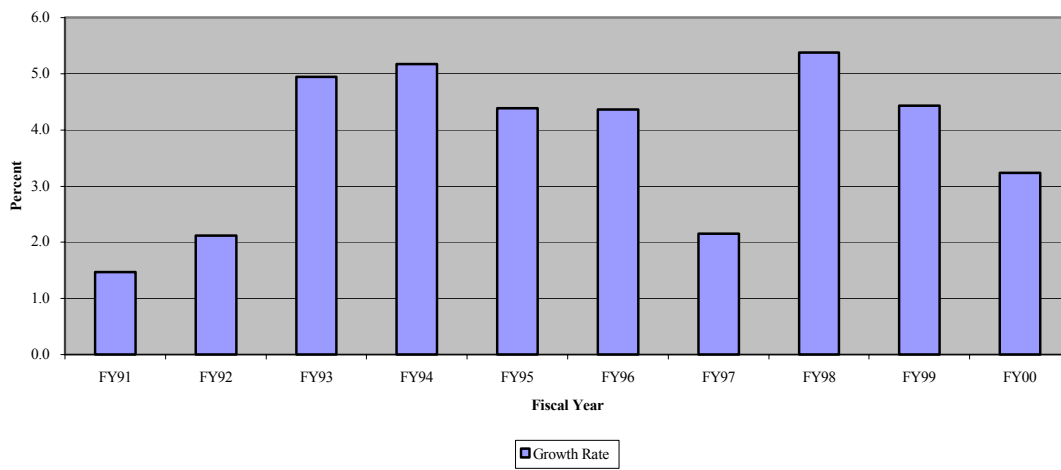
Fiscal Year	Road Fund			
	Total Revenue (Millions of Dollars)	Percent Change	Total Tax Receipts (Millions of Dollars)	Percent Change
FY91	765.6	1.5	717.7	0.1
FY92	781.8	2.1	741.5	3.3
FY93	820.4	4.9	792.9	6.9
FY94	862.8	5.2	836.5	5.5
FY95	900.6	4.4	868.7	3.8
FY96	939.9	4.4	899.0	3.5
FY97	960.2	2.2	919.8	2.3
FY98	1,011.8	5.4	961.5	4.5
FY99	1,056.6	4.4	1,013.5	5.4
FY00	1,090.8	3.2	1,055.3	4.2

Source: Governor's Office for Economic Analysis, Office of State Budget Director ,
Kentucky Quarterly Economic & Revenue Report: Fourth Quarter Report, FY 2000.

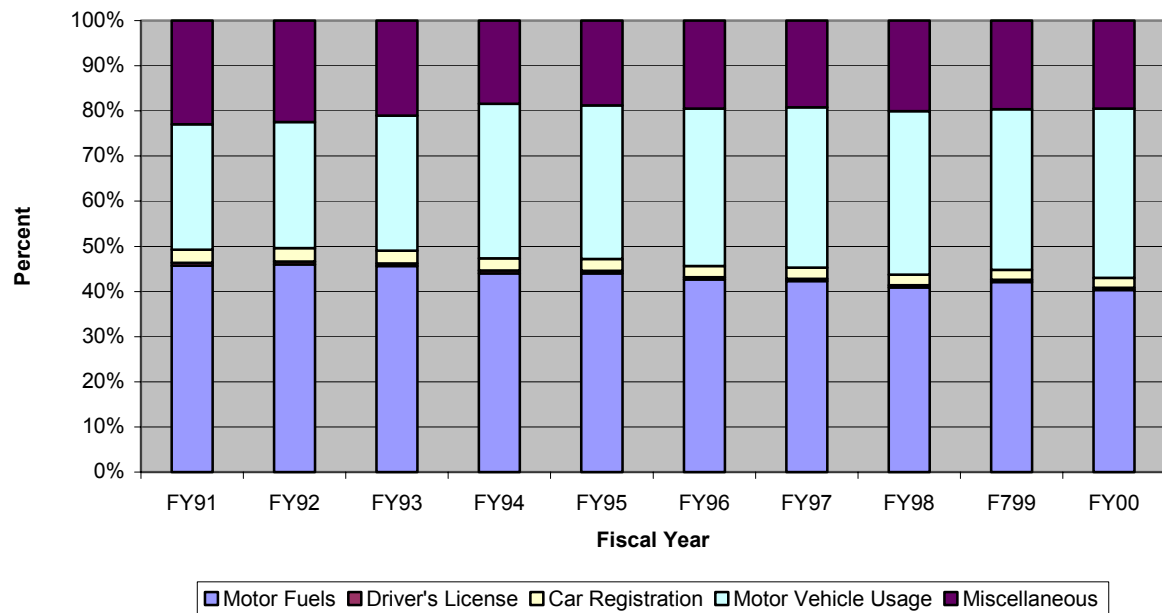
**Figure 1-1
Road Fund Tax Receipts Growth**



**Figure 1-2
Road Fund Revenue Growth**



**Figure 1-3
Road Fund Revenue Sources**



Motor Fuels Taxes

A portion of the money a consumer pays for motor fuel at the pump consists of motor fuel taxes levied by federal and state authorities. These taxes vary by the type of fuel – for example, gasoline, diesel, gasohol – and by the tax or fee type – excise, sales, motor carrier, and the like. Motor fuels represent a significant source of revenue for state Road Funds. Two factors are important in the amount of revenue generated from motor fuel taxes: the amount of motor fuels consumed and the particular tax rate assessed on motor fuels.

Currently, Kentucky levies a tax of 16.4 cents per gallon of gasoline and 13.4 cents per gallon of diesel fuel. A portion of the tax on motor fuels, 1.4 cents, is assessed as an environmental assurance fee while the remainder is dedicated to the Road Fund. Thus, in effect, 15 cents of the 16.4 cents tax on gasoline and 12 cents of the 13.4 cents on diesel are allocated to the Road Fund. An additional motor fuels “surtax” of 2.2 cents per gallon on gasoline and 5.2 cents per gallon on diesel fuel is imposed on heavy equipment motor carriers over 26,000 pounds.

Table 1-2 summarizes Kentucky’s motor fuel tax revenue (exclusive of the motor fuels surtaxes) for FY91 through FY00. As the table indicates, motor fuel tax revenue increased steadily from FY91 through FY99 with revenues growing to almost \$428 million by FY99. However, the revenues for FY00 experienced a negative growth rate. This decrease in motor fuel tax revenues resulting from lower motor fuel sales was a major factor in the Road Fund revenue shortfall experienced in that fiscal year 2000 [Courier-Journal, 2001]. Figure 1-4 indicates the motor fuels revenue growth rates for FY91 through FY00.

Table 1-2: Motor Fuels Revenue

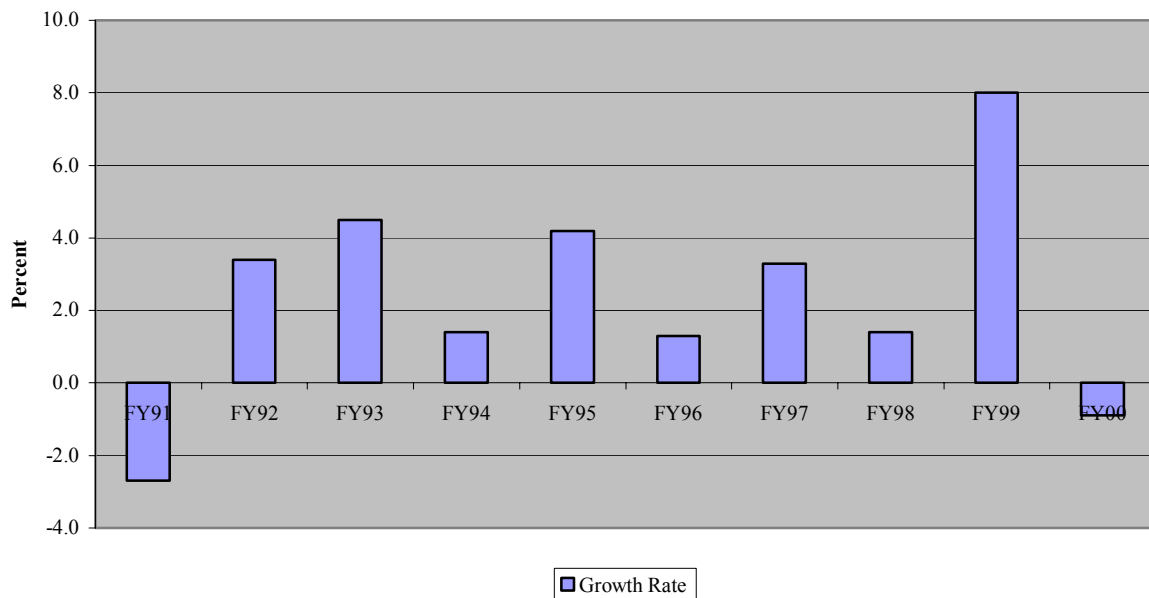
	<i>Motor Fuels</i>		
	<i>Total Revenue</i>	<i>Percent of Total</i>	
Fiscal Year	(Millions of Dollars)	Road Fund Tax Receipts	Percent Change
FY91	327.5	45.6	-2.7
FY92	338.5	45.7	3.4
FY93	353.7	44.6	4.5
FY94	358.4	42.8	1.4
FY95	373.3	43.0	4.2
FY96	378.1	42.1	1.3
FY97	390.7	42.5	3.3
FY98	396.1	41.2	1.4
FY99*	427.8	42.2	8.0
FY00	423.9	40.2	-0.9

Source: Governor’s Office for Economic Analysis, Office of the State Budget Director, Kentucky Quarterly Economic & Revenue Review: Fourth Quarter Report, FY00.

* FY99 motor fuels revenue is overstated due to a \$14.8 million overpayment.

The latest change in Kentucky's "nominal" tax rate for gasoline and diesel fuel occurred in 1994. That change increased the Petroleum Storage Tank Environmental Assurance Fee or tax from .4 cents to 1.4 cents per gallon. This fee that is commonly referred to as the Leaking Underground Storage Tanks or "LUST" tax was enacted to provide funding for the removal of underground storage tanks. While often considered a component of Kentucky's gasoline and diesel tax rate, the revenue generated by this fee does not benefit the Road Fund.

Figure 1-4
Motor Fuels Revenue Growth



Motor Vehicle Usage Tax

Kentucky's motor vehicle usage tax is, in reality, a form of a sales tax that has been earmarked for the Road Fund. In FY00, motor vehicle usage taxes accounted for about 40 percent of total Road Fund revenues. The usage tax is calculated as 6 percent of the retail price on new and used vehicles. As of 1998, the retail price or "tax base" against which the 6 percent tax is levied is the actual selling price as provided in a notarized affidavit signed by both the buyer and seller of a vehicle. In the absence of such affidavit, the retail price tax base is 90 percent of the Manufacturer's Suggested Retail Price (MSRP) for new vehicles or the average retail price indicated by a Revenue Cabinet prescribed reference manual for used vehicles.

Table 1-3 presents the total motor vehicle usage tax revenue for FY 91 through FY00. As indicated, usage tax revenue has steadily increased from \$212.3 million in FY91 to \$409.4 million in FY00. The increase in revenue is due to a larger tax base

arising from the increase in the volume and value of car sales [Zimmer, et al., 1999]. Thus, it is important to note that the future revenue stream from usage taxes primarily depends on price changes and the number of vehicles sold.

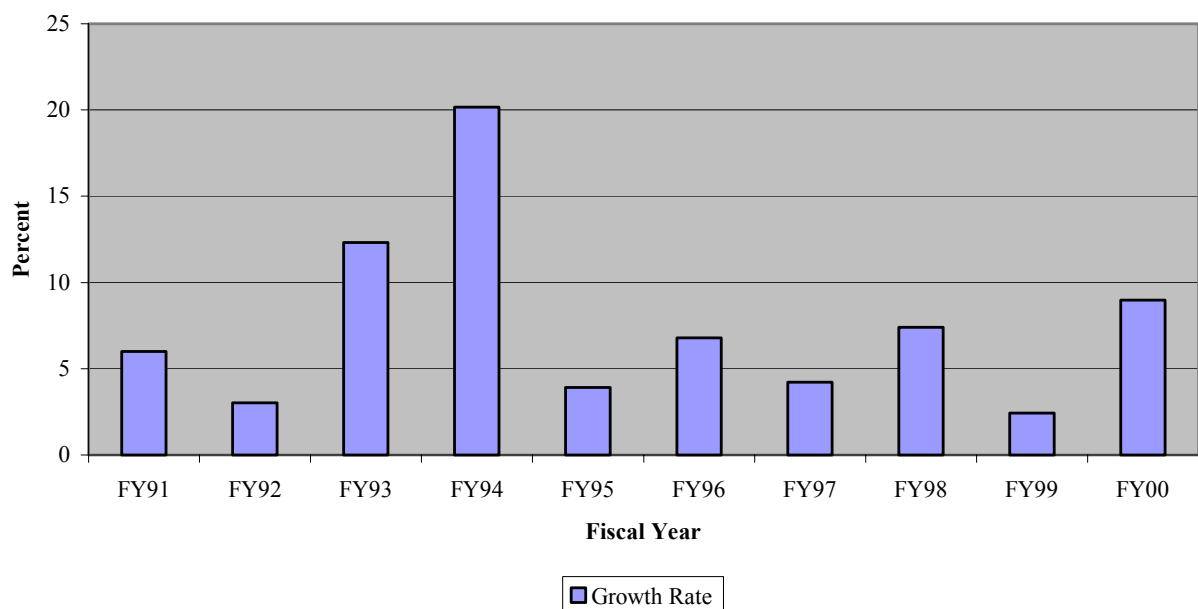
Table 1-3: Motor Vehicle Usage Revenue

Fiscal Year	Motor Vehicle Usage Taxes		
	Total Revenue	Percent of Total	Percent
	(Millions of Dollars)	Road Fund Tax Receipts	
FY91	212.3	29.6	6.0
FY92	218.7	29.5	3.0
FY93	245.7	31.0	12.3
FY94	295.2	35.3	20.2
FY95	306.8	35.3	3.9
FY96	327.6	36.4	6.8
FY97	341.5	37.1	4.2
FY98	366.8	38.1	7.4
FY99	375.7	37.1	2.4
FY00	409.4	38.8	9.0

Source: Governor's Office for Economic Analysis, Office of the State Budget Director, Kentucky Quarterly Economic & Revenue Report: Fourth Quarter Report, FY00.

Figure 1-5 shows the motor vehicle usage tax growth rate for FY91 through FY00.

**Figure 1-5
Motor Vehicle Usage Tax Growth**



Weight-Distance Tax

Kentucky is one of four states that still levies a weight-distance tax. The weight-distance tax is used as a method of charging trucks for the wear and tear they inflict upon public roads. Table 1-4 presents the total weight-distance tax and weight-distance surtax revenue for FY92 through FY00. As indicated, revenues generated by the weight distance tax decreased from FY93 through FY95. However, this nominal decrease is somewhat misleading as the weight-distance “surtax” was being phased out during this period (details of phase out are discussed in Chapter 3). Since FY96, revenues generated by the weight-distance tax have increased steadily. The weight-distance tax has declined in popularity among states as a revenue source because it is not uniformly accepted and applied across all states.

Table 1-4: Weight Distance Tax/Surtax Revenue*

Fiscal Year	<i>Weight Distance Tax/Surtax</i>		
	<i>Total Revenue</i>	<i>Percent of Total</i>	<i>Percent Change</i>
	<i>(Millions of Dollars)</i>	<i>Road Fund Tax Receipts</i>	
FY92	62.3	8.4	
FY93	67.9	8.6	8.9
FY94	57.3	6.9	-15.5
FY95	57.2	6.6	-0.2
FY96	59.8	6.7	4.5
FY97	63.1	6.9	5.4
FY98	66.7	6.9	5.7
FY99	70.2	6.9	5.2
FY00	75.2	7.1	7.1

Source: Kentucky Transportation Cabinet

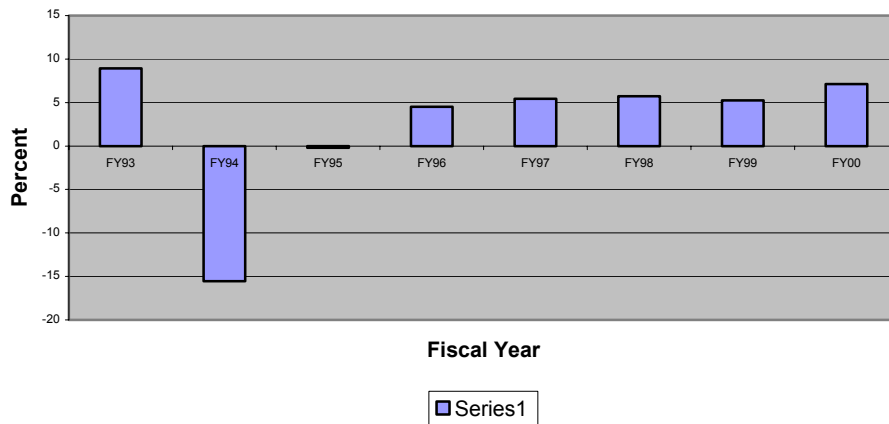
* Additional details regarding the weight distance tax are shown in Table 3-7.

Figure 1-6 shows the growth rate for the weight distance tax for FY93 through FY00.

Registration Fees

Kentucky’s motor vehicle registration fees rank among the lowest in the nation [Zimmer, et al., 1999]. Currently, registration fees for a passenger car are \$15 annually, of which \$11.50 is earmarked for the Road Fund, \$3.00 for the county clerk fee, and \$0.50 for a reflectorization fee. Kentucky also imposes registration fees on trucks and commercial vehicles that vary by vehicle weight for both intrastate and interstate carriers. Interstate carrier registration fees are shared with other states on a formula basis.

Figure 1-6
Weight Distance/Surtax Revenue Growth



Other Revenue Sources

Other sources of revenue used to finance Kentucky's system of roads and highways include investment income, tolls, and road bond proceeds. Table 1-5 summarizes the investment and toll road income over the past decade while Table 1-6 provides an overview of Kentucky's use of bonds to finance its highway system over the last decade. Investment income is subject to fluctuations due to variations in interest rates and available Road Fund revenues and unspent bond proceeds. As of FY00, Kentucky had \$1.1 billion of bonds outstanding supported by the Road Fund.

Table 1-5: Investment and Toll Road Revenue

Fiscal Year	<i>Investment Revenue (Millions of Dollars)</i>	<i>Toll Road Revenue (Millions of Dollars)</i>
FY91	27.6	17.7
FY92	24.2	16.2
FY93	17.8	10.5
FY94	17.4	11.0
FY95	17.5	11.7
FY96	33.9	11.9
FY97	31.9	12.7
FY98	42.0	13.1
FY99	35.6	13.4
FY00	29.4	13.6

Source: Kentucky Transportation Cabinet

Federal Funds

As discussed earlier, state Road Funds are supplemented with Federal Funds from the federal Highway Trust Fund. Revenue to fund the Highway Trust Fund is derived from a number of sources including motor fuel taxes, taxes on tires weighing more than 40 pounds, sales on new trucks and trailers, and use taxes for trucks weighing more than 55,000 pounds. Federal legislation requires that funds paid into the Highway Trust Fund be returned to the states to finance various highway programs according to legislatively established formulas. Under the “minimum allocation guarantee,” each state receives at least 90.5 percent highway user percentage attributions to the Highway Account of the Highway Trust Fund. Table 1-7 presents the Federal Highway Trust Fund monies apportioned to Kentucky.

Table 1-6: Outstanding Road Fund Bonds by Fiscal Year

Fiscal Year	<i>Road Fund Bonds</i> (Billions of Dollars)
FY91	1.185
FY92	1.437
FY93	1.373
FY94	1.338
FY95	1.584
FY96	1.496
FY97	1.437
FY98	1.345
FY99	1.228
FY00	1.103

Source: Kentucky Turnpike Authority

Table 1-7: Federal Highway Trust Fund Apportionments

Fiscal Year	<i>Federal Funds</i> Total Revenue (Millions of Dollars)
FY91	238.3
FY92	279.0
FY93	242.0
FY94	289.6
FY95	316.7
FY96	271.5
FY97	373.4
FY98	398.1
FY99	471.1
FY00	514.3

Source: Kentucky Transportation Cabinet

Current Status of the Road Fund

As indicated, Road Fund revenues are used to finance the maintenance and management of the 27,415-mile state-maintained highway system. Although Road Fund revenues have increased over the years, construction prices and travel demands have increased as well. Several studies [Wilbur Smith Associates, 1997; Zimmer, et al., 1999] have indicated that the current tax and revenue base for the Road Fund is inadequate to meet the Kentucky Transportation Cabinet's projected spending and investment needs. These studies have found that the revenue and tax base is limited due to its relatively inelastic quality. This means that Road Fund revenues tend to lag behind growth in the general economy. As the Kentucky economy expands and demand for use of the Road Fund increases, Road Fund revenues may not be able to meet construction and maintenance demands.

Road Fund Tax Changes in the Decade of the 1990s

During the decade of the 1990s, a number of tax changes were implemented that had an impact on the Road Fund. Table 1-8 presents the changes, during this era, in the taxes that contribute to the Road Fund. Changes were made in the motor vehicle usage taxes, the motor fuels tax (the LUST fee adjustment), and the administration of the various taxes. As the table indicates, some of the tax changes resulted in an increase in Road Fund revenues, while other tax changes decreased revenues. Overall, the tax changes enacted in the 1990 and 1992 sessions of the Kentucky General Assembly served to increase Road Fund revenues, and the tax changes enacted in the following sessions decreased - to a greater or lesser degree - Road Fund revenues.

In 1990, the motor vehicle usage tax was increased from five to six percent. This change was projected to increase usage tax collections by \$35.0 million in FY91 and \$40.5 million in FY92. The extension of the weight-distance surtax also increased Road Fund revenues by \$13.5 million in FY 91 and \$15.0 million in FY92. The weight-distance surtax was extended again in 1992 and resulted in increased revenues for the Road Fund. The projections were \$2.8 million in FY92, \$18.4 million in FY93, and \$19.3 million in FY94. The other tax changes made during the 1992 session involved a change in the administration of the motor vehicle usage tax and the fuel tax.

The 1994 session saw another change in the administration of the motor vehicle usage tax and the elimination of the fee for transporting hazardous materials. Together, these changes were projected to decrease Road Fund revenues by \$2.0 million. The heavy fuel surtax was repealed in 1996 in order to conform with the International Fuel Tax Agreement (IFTA). This tax change was projected to decrease Road Fund revenues by \$6.0 million in both FY97 and FY98. The taxable value of a motor vehicle when bought or sold was changed in 1998 and was projected to decrease Road Fund revenues - \$6.8 million in both FY99 and FY 00. The other tax change impacting the Road Fund made during that year was a change in the administration of the motor vehicle usage tax. Finally, the end of the decade was marked by a tax administration change involving the

motor fuels excise tax. This change was projected to decrease Road Fund revenues by a total of \$5.4 million in FY01 and FY02.

Table 1-8. Kentucky Road Fund Tax Changes – Decade of the 1990s

Year	Bill No.	Provision of Legislation	Fiscal Impact
1990	HB 940	Increased motor vehicle usage tax from 5% to 6%	FY 91 \$35,000,000 FY 92 \$40,500,000
	HB 799	Extended sunset for the weight-distance surtax until the last day of the last month in which receipts from the tax have reached a cumulative total of \$63,000,000	FY 91 \$13,500,000 FY 92 \$15,000,000
	SB 81	Street rod license plates	FY 91 \$1,000 FY 92 \$1,000
	HB 474	Fraternal Order of Police license plates	FY 91 \$54,000 FY 92 \$13,500
1992	HB 468	Extended weight-distance surtax	FY 92 \$2,800,000 FY 93 \$18,400,000 FY 94 \$19,300,000
	HB 748	Exempted transfers between grandparents and grandchildren from motor vehicle usage tax	FY 93 (Minimal) FY 94 (Minimal)
	HB 656	Changes interest payment requirement on fuels tax refunds	FY 93 \$100,000 FY 94 \$100,000
1994	HB 13	Exempts transfers of vehicles between stepparents and stepchildren from motor vehicle usage tax	FY 95 (\$2,000,000) FY 96 (\$2,000,000)
	HB 448	Eliminates fee for transporting hazardous material within or through the Commonwealth	FY 95 (\$18,000) FY 96 (\$18,000)
1996	HB 322	Repealed the \$0.02 fuel tax on motor carriers with combined license weight in excess of 59,999 pounds (required to conform with the International Fuel Tax Agreement)	FY 96 (\$6,000,000) FY 97 (\$6,000,000)
1998	HB 74	Provided that the motor vehicle usage tax on all new and most used vehicles is to be based on an affidavit	FY 99 (\$6,800,000) FY 00 (\$6,800,000)
	SB 102	Exempted from the motor vehicle usage tax the transfer of motor vehicles between a corporation, proprietorship, or limited liability company within six months from the time the business is incorporated or dissolved	FY 99 (Minimal) FY 00 (Minimal)
2000	HB 911	Exempted special fuels used for non-highway purposes from payment of the motor fuels excise tax instead of making payment and applying for refund	FY 01 (\$5,100,000) FY 02 (\$300,000)

Source: Biennium Budget of the Commonwealth (various years); Legislative Research Commission

Looking Forward: Tax Principles and Road Fund Tax Reform

The financing of a state's highway and road system is enhanced by a tax structure that is consistent with traditional tax principles. According to tax policy experts, the traditional hallmark characteristics of an effective state tax system are adequacy, efficiency, equity, simplicity, and efficient administration. More recently, public finance analysts have begun to focus on the competitiveness of state tax systems as well. The latter concern has arisen as states have witnessed the negative economic impacts of tax structures that encourage businesses, firms and individuals to move to adjoining states if their state's tax structure places them at a competitive disadvantage. The following sections review these tax structure hallmarks and suggest ways and means to apply them in the design of an effective Road Fund tax and revenue structure.

Adequacy

One of the most difficult issues to deal with in the design of an effective tax structure is the adequacy of a tax system. The difficulty arises due to the fact that adequacy is to a great degree "in the eyes of the beholder." When one attempts to define adequacy of a state's transportation tax and revenue structure, different opinions arise regarding the type of system that is adequate. Individuals and businesses may have different opinions about the type of system that will meet their needs for conducting business and trade and meeting personal transit needs. Firms involved in interstate movement have different needs than firms involved in intrastate business activities. Likewise, individuals required to commute long distances have different needs and perceptions of "adequacy" than individuals employed close to their homes. Similarly, rural and urban residents have different needs and feelings about what constitutes an adequate transportation network and system and, hence, different attitudes regarding the adequacy of a state's Road Fund financing.

An accepted approach to estimating the adequacy of a state's tax and revenue structure is the concept of elasticity that attempts to measure the growth of tax revenues relative to income. An inherent assumption of this method is that transportation needs tend to grow as a state's economy (personal income) grows. A recent study of Kentucky's Road Fund revenues from 1980 to 1997 [Zimmer, et al., 1999] examined the Road Fund's responsiveness to Kentucky's income growth or elasticity. It is noted that an "income elasticity" of greater than one indicates that the fund or revenue source is very responsive to income changes, while an income elasticity of less than one indicates that the fund or revenue source is not very responsive to income changes. The Road Fund tax and revenue elasticities calculated by this study suggest that overall the road fund's elasticity has a value of one meaning that total Road Fund revenue growth grows in direct proportion to income growth. It also suggests that Road Fund revenue growth is slower than revenue growth for the General Fund that has a slightly higher elasticity for the same period. Table 1-9 shows the elasticities reported by the study. Meanwhile, a more recent study by Fox [Fox, 2002, p. 14], based on a different time period (1992-2001) estimated Kentucky's overall Road Fund elasticity to be .66. While caution should be exercised in the interpretation of such elasticity values due to the fact that "aggregate elasticities" may

not adequately consider the distorting impacts of tax increases and decreases on elasticity estimates, the elasticity estimates indicate that motor fuel taxes and “other” Road Fund revenue sources are not very responsive to income changes. Only the motor vehicle usage tax [in the Zimmer, et al., study] of the major Road Fund revenue sources had an estimated elasticity value greater than one for their study period. The higher elasticity of the usage tax accounts for its growing importance as a source of revenue for Kentucky’s Road Fund. Caution should also be exercised in using this elasticity estimate as a partial proxy for Road Fund adequacy. Such caution is appropriate because the calculated usage tax elasticity value reflects a number of factors including growth in the number of vehicles purchased (a possible indicator of transportation system demand and adequacy), the type of vehicle purchased (for example, more expensive vehicles), and price changes.

Table 1-9: Income Elasticities of Funds and Revenue Sources

Funds		Revenue Sources for the Road Fund		
General Fund	Road Fund	Motor Vehicle Usage	Motor Fuel	All Other Road Fund Source
1.22	1.00	1.36	.85	.8

Source: “Kentucky’s Road Fund Tax Structure”, Zimmer, et al., unpublished report, 1999.

An alternative empirical proxy for adequacy is a comparison of Road Fund growth to the cost of road and highway construction. The Federal Highway Administration (FHWA) estimates such costs had an average growth rate of 3 percent for the decade of the 1990s [FHWA, “Price Trends for Federal-aid Highway Construction”]. By comparison, Kentucky’s Road Fund revenue growth (all sources) averaged about 3.7 percent and Road Fund tax and fee revenue growth averaged 3.8 percent for the same period. Again, care should be exercised in making these comparisons as the “cost of construction estimate” by the FHWA only reflects cost changes for similar maintenance and construction activities. The FHWA estimate does not account for the increase in such activity needed to meet the demand for highway expansion and improvement. Such increases may be needed due to increased economic activity and business and individual travel. Also, average growth rates for the Road Fund do not account for changes in tax and fee structures enacted during the decade that might distort the true comparable base growth rate.

Finally, the adequacy of a state’s Road Fund tax system is ultimately determined by the ability of a state’s Road Fund revenue resources to meet future highway and road construction maintenance and construction needs. From this perspective, as discussed earlier, the adequacy of Kentucky’s Road Fund revenues to meet future funding needs is in doubt. A study of Kentucky’s Road Fund adequacy conducted by Wilbur Smith and Associates [Wilbur Smith & Associates, 1997] suggested that the lack of funding to meet the needs of the state’s highway system (that they found) will result in deterioration of road conditions, an increase in accident rates and fatalities, and lost economic opportunities. Such observations and the various empirical studies suggest a Road Fund adequacy concern for the future.

Efficiency

A second goal for the design of a desirable tax structure is efficiency. Translated, an efficient tax system is one that minimizes the impact of taxes on the economic decisions of households and businesses and supports long-run growth. Moreover, an efficient Road Fund tax system or structure provides a stable source of revenue for highway construction and maintenance. The stability of a revenue stream reduces the risk of shortfalls for Road Fund budget makers and reduces the uncertainty associated with long-term investment and financing decisions. As with any other revenue fund, the stability of the Road Fund depends on the stability of the revenue sources. Much of the fluctuation in the revenue stream for the Road Fund can be attributed to changes in tax and fee policies. In addition, changes in the tax base such as the amount of fuel consumed, fluctuations in the prices of vehicles sold, and variations in the money appropriated from Federal funds, can create instability in the Road Fund. While changes in the tax base can lead to instability of Road Fund revenues, it is the periodic changes in policies that cause the greatest disruptions to the stability of the revenues. Small changes in tax and fee policies can create significant changes in revenue streams. As stated above, instability of the Road Fund can make it difficult for policy makers to engage in long-term planning. Finding ways to make the revenue stream of the Road Fund more stable and consistent should be a policy objective.

Equity

The goal of an equitable tax system is to distribute tax burdens fairly across taxpayers. As it pertains to the Road Fund, equity is determined by the revenue produced relative to the cost responsibility of different classes of users. Table 1-10 compares revenue and costs generated by various types of vehicles for 1999. Attention should be focused on the ratio of the percent of revenue to the percent of cost for different classes of vehicles. A ratio of one implies equity among cost responsibility and revenue contribution. A ratio less than one implies that the particular class of vehicle is providing less revenue relative to costs, while the converse is true for a ratio greater than one.

The ratio column in Table 1-10 indicates that cars, buses, and heavy trucks generate more costs than revenues by the use of these classes of vehicles. In contrast, pickups and vans, light trucks, and medium trucks generated more revenues than costs associated with these types of vehicles.

Table 1-11 shows the equity ratio over time – 1991 through 1998. Buses, pickups and vans, light trucks, and medium trucks have shown an increase in the ratio of revenue contributed to cost responsibility. However, buses (0.21 to 0.86), light trucks (1.06 to 1.52), and medium trucks (0.63 to 1.02) have shown the largest increase in the ratio of revenue contributed to cost responsibility.

Table 1-10: Contribution and Cost Responsibility of Kentucky Highway Users

Vehicle Type	Total Annual Cost Responsibility		Total Annual Revenue Contribution		Ratio of Percent Revenue Contributed to Percent Cost Responsibility
	Amount (Thousands)	Percent of Total	Amount (Thousands)	Percent of Total	
Cars	\$592,156	44.06	\$560,389	43.00	0.98
Buses	13,710	1.02	11,491	0.88	0.86
Pickups & Vans	290,623	21.63	317,351	24.35	1.13
Light Trucks	26,227	1.95	38,705	2.97	1.52
Medium Trucks	57,488	4.28	56,817	4.36	1.02
Heavy Trucks	363,727	27.06	318,555	24.44	0.90
Total	\$1,343,931	100.00	\$1,303,307	100.00	1.0

Source: Kentucky Transportation Center, 2000 Highway Cost Allocation Update: Technical Report

Table 1-11: Ratio of Contribution and Cost Responsibility of Kentucky Highway Users

Vehicle Type	Ratio of Percent Revenue Contributed to Percent Cost Responsibility				
	1991	1993	1995	1997	1999
Cars	1.01	0.98	0.96	0.94	0.98
Buses	0.21	0.41	0.79	0.78	0.86
Pickups & Vans	1.10	1.12	1.16	1.19	1.13
Light Trucks	1.06	1.13	1.40	1.39	1.52
Medium Trucks	0.63	0.89	1.08	1.08	1.02
Heavy Trucks	1.03	0.99	0.91	0.91	0.90
Total	1.00	1.00	1.00	1.00	1.0

Source: Kentucky Transportation Center, 2000 Highway Cost Allocation Update: Technical Report

Table 1-12 provides further explanation of the growth of revenue versus the growth of costs for each class of vehicles. Looking at the revenue and cost breakdowns over time for the classes of pickups and vans, light trucks, and medium trucks, it appears that the percentage of cost responsibility for these classes of vehicles has increased over time while the percentage of revenue contributions has gone down. These trends have generated the upward movement in the ratio for these categories of vehicles over time. On the other hand, the cost responsibility of heavy trucks has increased thus resulting in a lower ratio over time. Both the cost responsibility and revenue contribution of cars has fluctuated both upward and downward, leading to a higher and lower ratio over time for cars.

Simplicity/Effective Administration

An effectively administered tax system minimizes the costs incurred by taxpayers in complying with the tax laws and the costs to government agencies to collect revenues. Concern over the cost of compliance was a major consideration of federal initiatives included in ISTEA (the Intermodal Surface Transportation Efficiency Act of 1991). That

act provided for the standardization of state motor fuel tax collection processes and required state participation in the International Registration Plan and the International Fuel Tax Agreement (IRP and IFTA). These initiatives greatly simplified tax and revenue collection processes for interstate commercial carriers. Further advances in effective tax and revenue administration can be achieved by state efforts to further standardize tax and revenue structures. Such standardization and simplification can reduce administrative costs for both the taxpayer and the tax collector.

Table 1-12: Cost Responsibility of Kentucky Highway Users over Time

<u>Vehicle Type</u>	Total Annual Cost Responsibility (Percent)					Total Annual Revenue Contribution (Percent)				
	1991	1993	1995	1997	1999	1991	1993	1995	1997	1999
Cars	44.16	45.22	45.93	45.74	44.06	44.69	44.15	44.17	43.03	43.00
Buses	1.34	1.29	1.14	1.04	1.02	0.28	0.53	0.90	0.81	0.88
Pickups & vans	20.40	19.80	19.99	20.72	21.63	22.49	22.13	23.28	24.76	24.35
Light trucks	2.53	2.44	1.95	2.07	1.95	2.69	2.76	2.72	2.89	2.97
Medium trucks	6.93	4.97	4.26	4.23	4.28	4.39	4.43	4.60	4.56	4.36
Heavy trucks	24.64	26.28	26.73	26.22	27.06	25.46	26.00	24.33	23.96	24.44
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Kentucky Transportation Center, 2000 Highway Cost Allocation Update: Technical Report

Competitiveness

A state's tax system can also be evaluated in terms of its competitiveness relative to benchmark states. Recently, states have been concerned about the appropriate level of motor fuel taxes, and states are now comparing their rates relative to neighboring states. In a study of Kentucky's Road Fund, Zimmer, and others [Zimmer, et. al., 1999] found that overall, Kentucky has a low tax burden of owning and operating a vehicle relative to bordering states, benchmark Southeastern states, and national averages. Other analysts suggest that Kentucky's usage tax for commercial carriers may not be competitive with surrounding states. This issue and other tax principle concerns are discussed in more detail in Chapter 3 of this report.

Summary and Overview of Other Study Chapters

Like other states, Kentucky levies a series of taxes and fees, which are supplemented by Federal funds and bond issues, and maintained in the state Road Fund to finance the maintenance, operation, and development of the state's highway system. Each state Road Fund tax and revenue structure is unique, but in general, taxes and fees include motor fuel taxes, registration fees, driver license fees, and usage or sales fees and taxes. Other state Road Fund revenue sources include toll revenues, weight-distance special taxes, and property taxes. The major revenue sources for Kentucky's Road Fund

are motor fuels taxes, motor vehicle usage taxes, registration fees, and the weight-distance tax.

Previous studies have indicated that the current tax base for the Road Fund is inadequate to meet the projected future highway transportation needs of the Commonwealth. This is due to the relative inelastic nature of the tax base. In the decade of the 1990s, a number of tax law changes were made that had an impact on the revenue sources for the Road Fund, both increasing and decreasing revenues. Those changes also impacted the adequacy, efficiency, equity, simplicity or effective administration, and competitiveness of Kentucky's Road Fund tax and revenue structure. The latter impacts are of long term concern as these tax principles are the hallmarks of an effective tax system and should be the objectives of any tax reform or modernization effort affecting the Road Fund.

Chapter 2 of this report provides a summary and analysis of Road Fund tax changes enacted by the various states during the last decade. The changes are summarized from data provided by the National Conference of State Legislatures (NCSL). The tax change or reform analysis was undertaken in an effort to determine national trends in state Road Fund tax policy during this period. The Chapter summarizes tax changes by Road Fund tax category and by type of change including tax rate changes, tax base changes and administrative process adjustments. The Chapter also provides the results of a survey of chief financial officers of state Transportation Departments or Cabinets that was designed to determine the reasons for the Road Fund tax law changes reported by NCSL. In Chapter 3, the major sources of Kentucky's Road Fund revenue are analyzed in detail regarding the base and rate structure, comparisons with other states' taxes of similar types and special provisions regarding Kentucky's taxes that have been enacted among other considerations. In addition, issues and concerns regarding Kentucky's Road Fund taxes are reviewed and options for Road Fund tax changes are considered.

Chapter 2: Road Fund Revenue Changes in the 1990s

The preceding chapter provided an overview of Kentucky's Road Fund and transportation financing environment. As indicated, the increasing costs of highway construction and maintenance pose major challenges for Kentucky and other states. Rising construction and maintenance costs have strained the state's ability to maintain an adequate transportation infrastructure system. As a consequence, states have often had to adjust their tax and revenue systems to meet financing needs. Such changes have been needed and enacted despite the fact that Road Funds were created to "safeguard" funds for transportation investment by providing earmarked or dedicated revenue. In doing so, Road Fund revenues have been protected from being diverted to other uses. In many cases, such adjustments were required in order to increase revenue due to the low or inelasticity of the principal Road Fund revenue sources.

As suggested in Chapter 1, concern about the current and future adequacy of Kentucky's Road Fund revenue base has focused on the nature and composition of Kentucky's Road Fund revenue base. For instance, motor fuel taxes are a major source of Road Fund revenues in Kentucky and most states. The inelastic nature of this revenue source limits the growth of motor fuels taxes compared to the state's economy. Therefore, as the economy expands and transportation needs grow, Road Fund revenues (generated from motor fuels taxes) may be insufficient to meet desired expenditures.

While revenue growth and revenue sufficiency continue to be prime concerns for state Transportation Cabinet officials and policy leaders, other issues are gaining Road Fund tax policy attention. Such emerging issues are often related to the tax principles described in Chapter 1. For instance, tax policy analysts and interest groups are concerned about the fairness and competitiveness of state Road Fund tax systems. For example, fairness concerns have emerged regarding the share of construction and maintenance costs that should be borne by various system users (passenger cars, light trucks, and commercial carriers). Such concerns have evolved due to the fact that different vehicles impose differential stress and wear and tear costs on the system. Likewise, state Road Fund policy makers are concerned about the competitiveness of their state's tax structure. If tax rates and structures differ significantly from those of surrounding states, firms may move to other states to avoid taxes. As a result, growth and expansion of the transportation sector of the Kentucky economy may be affected.

Concerns are also expressed regarding the "efficiency" and "simplicity" of a state's Road Fund tax structure. Due to the complexity of Road Fund tax structures, recent federal legislation, particularly ISTEA and TEA 21, have encouraged the states to simplify their Road Fund tax systems. Such action has been largely driven by a desire to reduce the cost of state tax law compliance by commercial carriers involved in interstate commerce. Tax simplification and across-state tax standardization actions have also been encouraged by state officials as a means of reducing administrative costs and improving the efficiency of Road Fund tax collection systems. Consequently, like with state General Funds, there is increasing state focus on reforming Road Fund tax systems to reflect

changes in the economy and to improve the efficiency, fairness, competitiveness and adequacy of Road Fund tax structures.

Study Purpose

The purpose of the research reported in this Chapter was to identify the state Road Fund tax changes that occurred during the past decade in the various states and to investigate the reasons for the changes. More specifically, the study was designed to gain a greater understanding of national trends regarding Road Fund tax reform, determine goals of such changes or reforms and determine the extent of comprehensive compared to incremental Road Fund tax adjustments during the last decade. Such a backdrop and national perspective is useful in the consideration of changes to Kentucky's Road Fund tax structure. This investigation focused on the decade from 1990 to 2000 in order to identify actions taken recently by the states to alter the amount and composition of revenues that are earmarked for transportation needs.

Study Design and Study Methodology:

This study was designed as a two pronged research effort in order to investigate and analyze Road Fund revenue changes and reform during the 1990s. First, a data set of all Road Fund related tax changes was obtained from the National Conference of State Legislatures (NCSL). The data set consisted of a description of all state Road Fund tax changes enacted from 1990 to 2000, as reported to the NCSL by the states, and the associated monetary impact for each change. From this data set, it was possible to determine the different categories of tax changes among the states, which are the following:

1. Motor Vehicle Fuel Tax
2. Diesel Fuel Tax
3. Special Fuel Tax
4. Weight-Distance Tax
5. Vehicle Registration Fees, Driver's License Fees, and Title Transfer Fees
6. Vehicle Sales / Use Tax
7. Vehicle Excise Tax

The NCSL data indicated whether the tax changes resulted in revenue increases or decreases. The revenue impacts of the tax changes were interpreted from the nature of the change including rate, base, or the administrative process changes. From this data set, it was possible to identify tax policy trends among the states during the 1990s. The tax policy trends were also analyzed by time period and region.

The second element of the study's research involved a national mail survey focusing on each state's road fund financing structure and supplemental information regarding each state's tax changes in the 1990s. The survey was sent to the Chief Financial Officer or Budget Director of the Transportation Department in every state. The purpose of the survey was to affirm and supplement the NCSL data set. The survey

supplemented the NCSL data by providing more detailed data on each tax change by year and the purpose(s) motivating the change. Tax principles such as adequacy, efficiency, equity, and competitiveness were provided as possible purposes for the enacted changes. Respondents indicated the tax principle or principles that motivated each change. The survey also provided more detail regarding the structure of each state's Road Fund. Additional survey questions were designed to determine whether a state had a dedicated Road Fund, the principle sources of each state's Road Fund revenue and the relative contribution of each revenue source to the state's Road Fund. The survey also included a question concerning the state's permitted uses of Road Fund revenues. The survey document is included in Appendix A of this study.

NCSL Data

Several Road Fund tax change trends are observable utilizing the NCSL data. Figure 2-1 indicates the tax changes enacted by the various states during the 1990s by type of Road Fund tax.¹ As shown, gasoline tax laws were changed most frequently during the period. If gasoline, diesel fuel, and special fuels are considered together, motor fuel taxes accounted for 59 percent of all the Road Fund related tax changes. Motor vehicle registration fees accounted for the second largest number of tax changes (28 percent).² Very few changes occurred in the other Road Fund revenue categories. There were only 7 changes among the states concerning usage taxes, 8 changes in the weight-distance tax, and 16 changes associated with vehicle excise taxes. These figures combined accounted for only 13 percent of all of the changes over the decade.

Figure 2-1: Changes by Tax or Fee 1990-1999

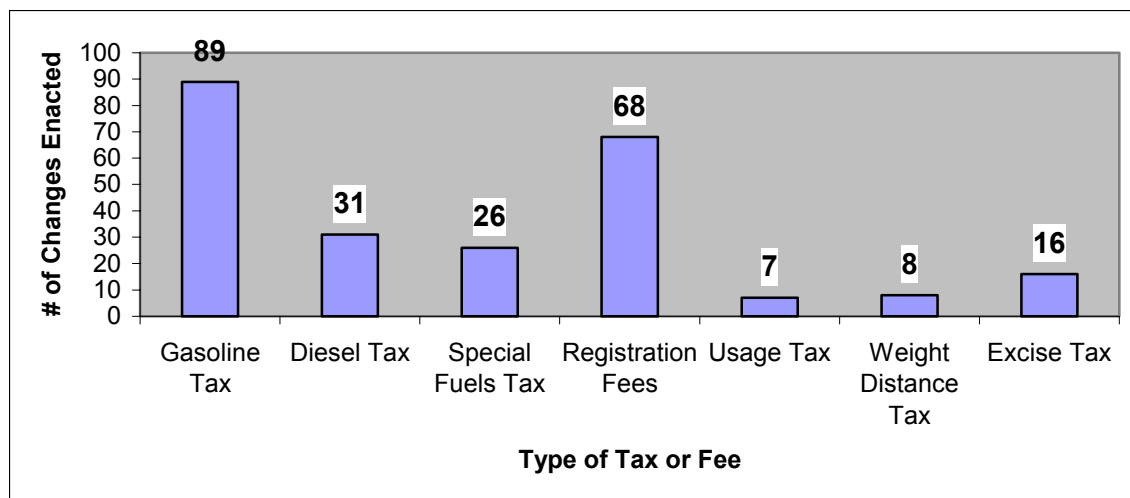


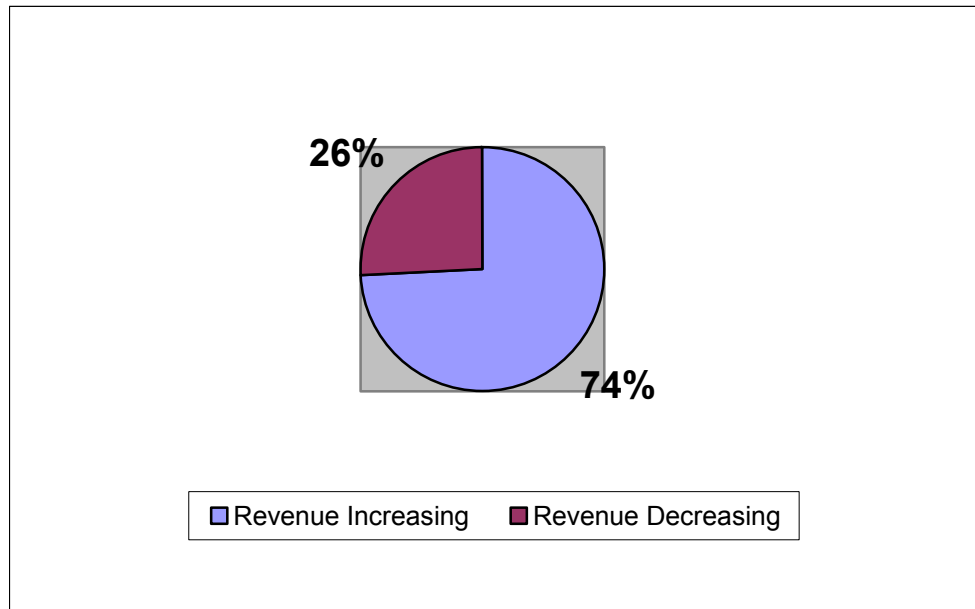
Figure 2-1 summarized the total number of changes enacted by tax or fee category. However, it did not specify the revenue impacts of these changes. The

¹ All charts, graphs, or other figures in the NCSL data section of this report are drawn from the National Conference of State Legislatures' *State Tax Actions* data set from 1990 to 2000.

² The registration fee category includes vehicle registration fees, driver's license fees, and title transfer fees.

following chart, Figure 2-2, shows that nearly three-quarters of all changes were made in order to increase revenues, while one-quarter were enacted to decrease revenues. More specifically, the NCSL data indicated that there were 182 revenue-increasing changes over the decade and 63 revenue-decreasing changes enacted.

Figure 2-2: Total Changes by Impact on Revenues



Road Fund revenues are increased or decreased in one of three ways including tax base, tax rate, or administrative process adjustments. An example of a tax base change was the enactment of a diesel fuel exemption for buses by the Texas in 1999. Kansas increased revenue by increasing their gas tax rate to 5 cents in 1990. Administrative revenue impacts could result from more aggressive auditing processes, tax amnesty programs or adjustments in the collection of revenues in cooperation with other states.

Utilizing the NCSL data, it was possible to analyze the types of changes enacted by Road Fund tax. Figures 2-3 through 2-9 illustrate the changes enacted during the 1990s by the states for gasoline taxes, diesel fuel taxes, special fuel taxes, registration fees, usage taxes, excise taxes, and weight-distance taxes. The changes for each category are reported in terms of impact (revenue increasing or revenue decreasing) and type of change (base, rate, or administrative change).

Figure 2-3: Gasoline Tax Changes by Type and Impact

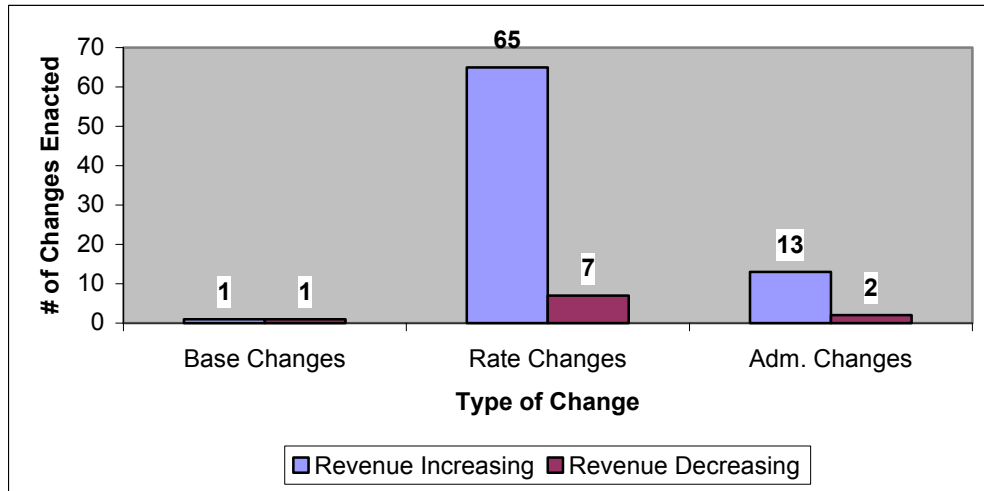


Figure 2-4: Diesel Tax Changes by Type and Impact

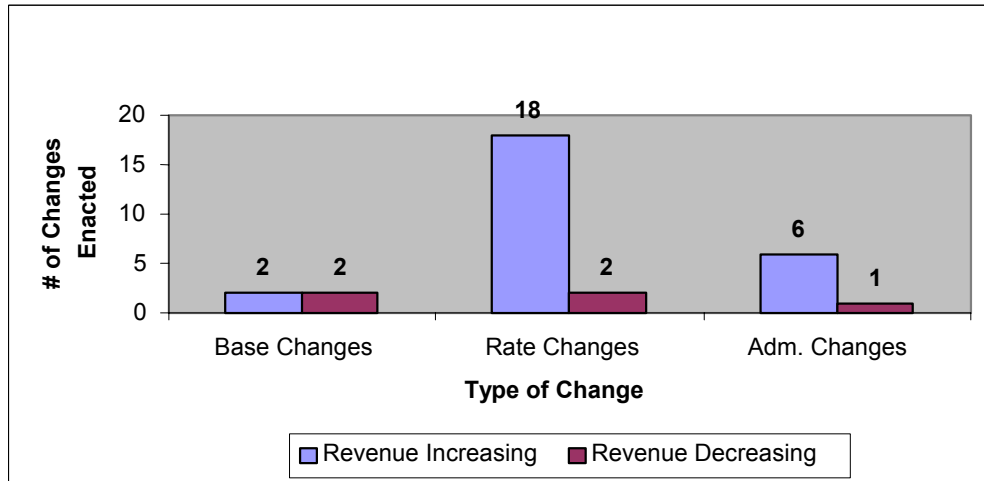


Figure 2-5: Special Fuel Tax Changes by Type and Impact

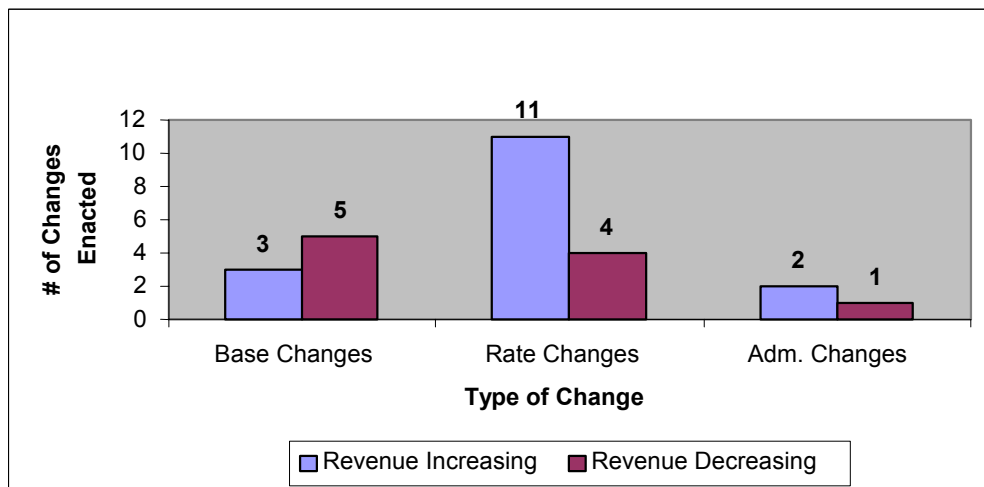


Figure 2-6: Registration, Title, and Driver's License Fee Changes By Type and Impact

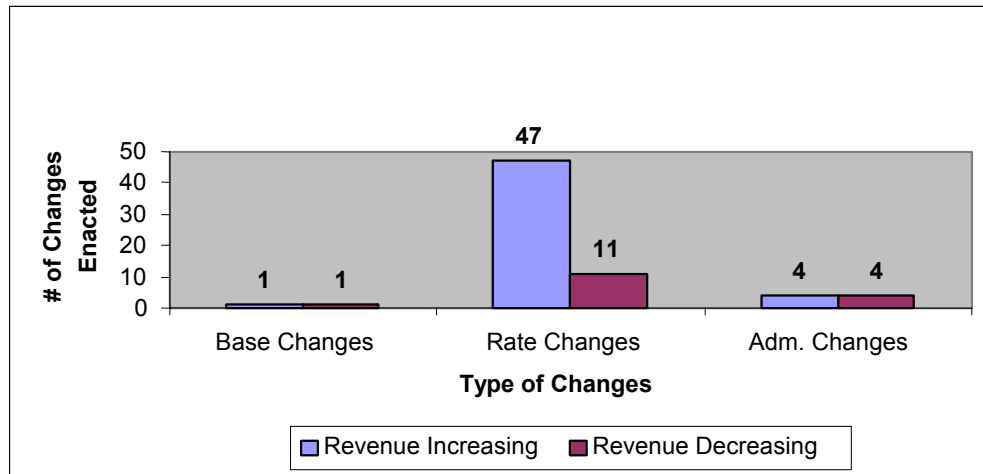


Figure 2-7: Usage Tax Changes by Type and Impact

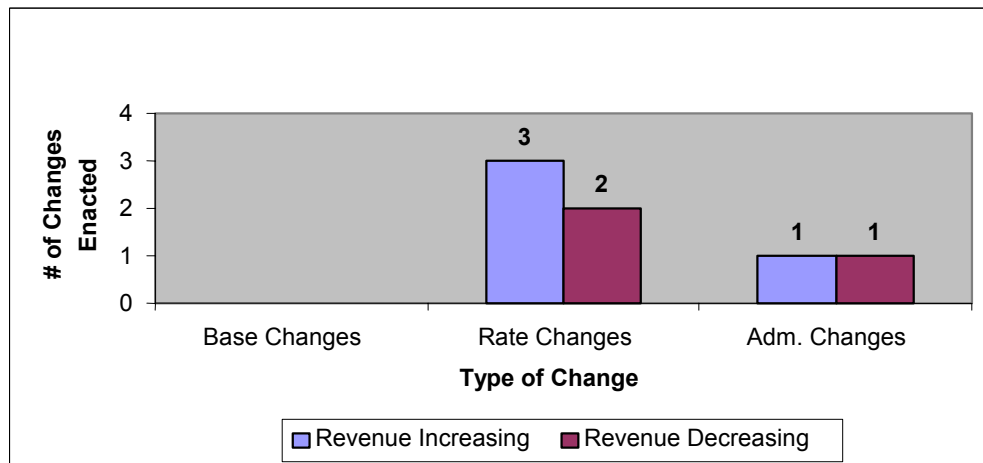


Figure 2-8: Weight Distance Tax Changes by Type and Impact

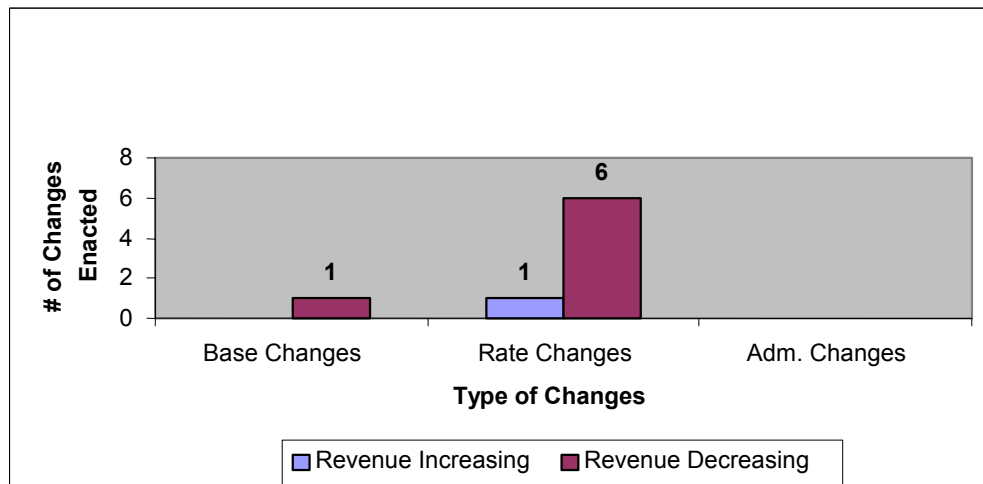
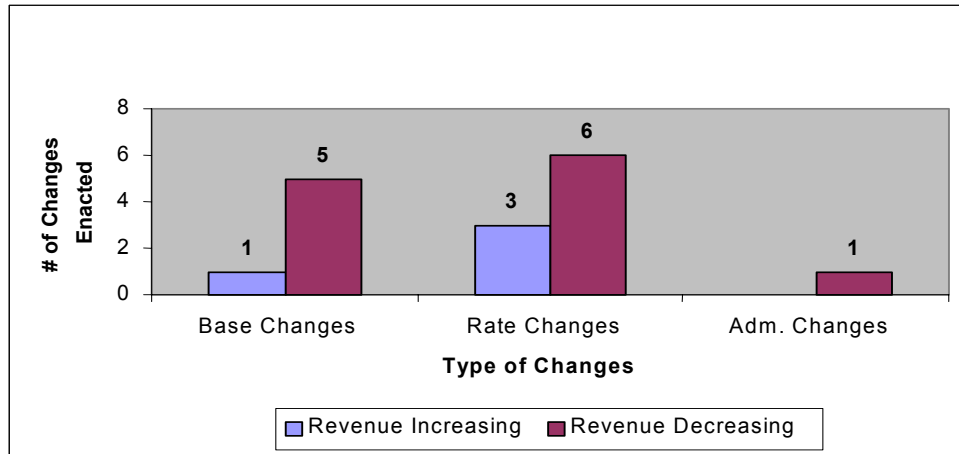


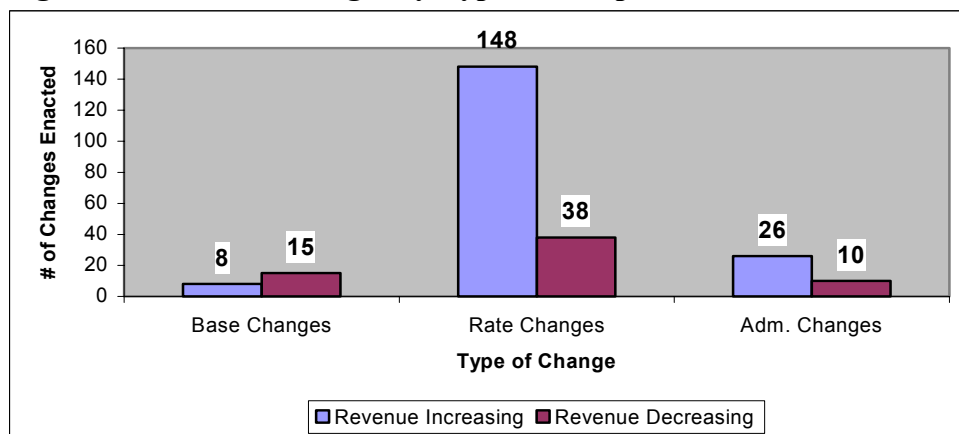
Figure 2-9: Excise Tax Changes by Type and Impact



From these figures, it is apparent that Road Fund tax changes were primarily enacted to increase state Road Fund revenues. In fact, revenue increase actions predominated in every category except excise and weight-distance taxes. It is also clear that rate changes were the most widely used method of change. Almost all gasoline, diesel, and special fuels tax changes involved rate while there were a few administrative changes in either category. Base changes were more numerous in the special fuels category, which usually occur in the form of the creation or removal of exemption for certain industry uses. Results were similar for registration fee changes in that the overwhelming majority of changes were rate changes, especially revenue increasing rate changes.

All but two of the changes in usage taxes involved either an increase or decrease in the tax rate. States have reduced their dependence on the weight-distance taxes. This is revealed by the prevalence of revenue decreasing changes for this tax including one repeal of a state's weight-distance tax. Excise tax changes also tended to reduce revenues rather than increase them. Figure 2-10, which illustrates all seven categories of tax and fee alterations jointly, more clearly indicates the reliance of states on rate changes to obtain desired tax policy impact(s).

Figure 2-10: Total Changes by Type and Impact

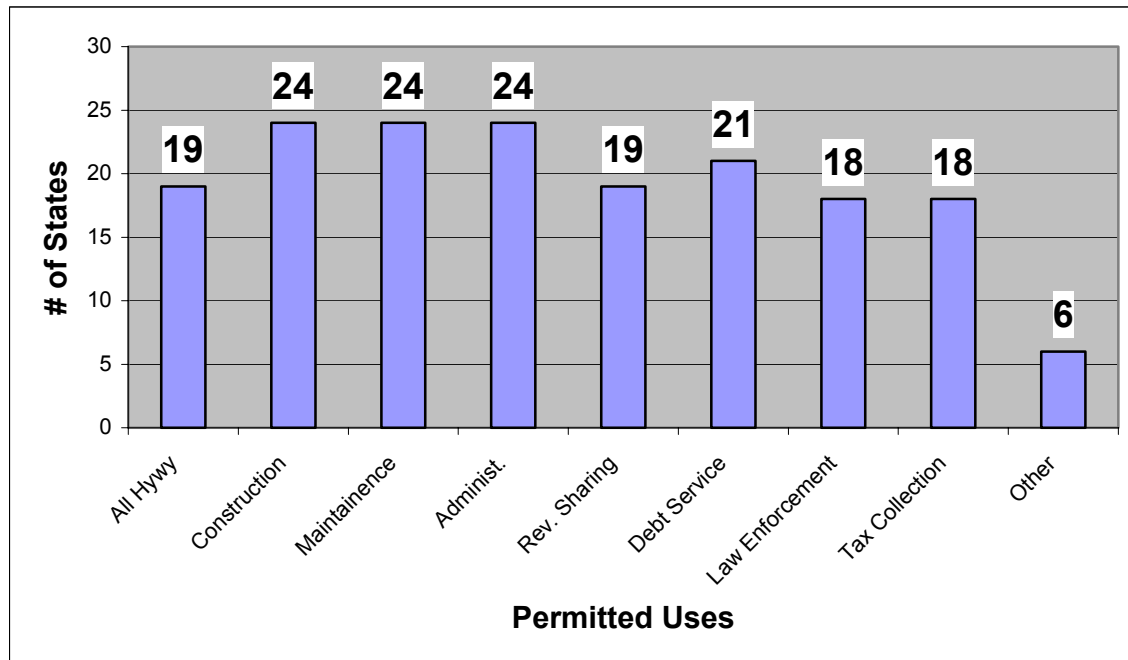


State Survey Data:

As discussed earlier, the second phase of this study involved a survey that was sent to the Chief Financial Officer or Budget Officer of each state's Transportation Department. The survey was designed to validate the NCSL data, determine the motivating force or forces that led to the various tax changes as well as acquire more specific details of the changes. Twenty-five states responded to the survey.³ Due to the 50 percent response rate, it was not possible to follow-up on all of the tax changes indicated by the NCSL data. However, the responding states provided substantial follow-up data described in this section. In most cases, the responding states validated the NCSL data for their state as they indicated that the NCSL data appropriately described their changes for the decade.

The responding states also clarified issues regarding the structure and permitted uses of their Road Fund monies. The survey requested that respondents indicate which of nine potential expenditure categories were permitted uses for their Road Fund revenues. These potential categories included all highway costs, road construction, maintenance, administrative costs, revenue sharing with local governments, debt service, law enforcement activities, tax collection activities, and a general other category. Figure 2-11 indicates the permitted uses of Road Fund revenues for the respondents. As expected, permitted uses were fairly uniform for the responding states.

Figure 2-11: Permitted Uses of Road Fund Revenues



³ Responding states are: Alaska, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Idaho, Iowa, Illinois, Indiana, Kansas, Kentucky, Maine, Michigan, Minnesota, Missouri, New York, Oregon, Pennsylvania, South Dakota, Tennessee, Washington, West Virginia, and Wisconsin.

As indicated, the state Transportation Department survey also considered the purpose or purposes of the tax changes that were enacted during the decade. Specifically, the respondents were asked to indicate which, if any, of the tax principles such as adequacy, simplicity and the like motivated the tax adjustments in their state. This component of the survey was intended to determine if there were major Road Fund tax concerns emerging among the states such as competitiveness or adequacy.

The survey results indicated that Road Fund tax and revenue adequacy was the major driver of Road Fund tax law changes for the states. Overall, the responding states indicated that 98 of 150 Road Fund tax changes were motivated by efforts to increase revenue due to concerns regarding tax adequacy. As shown concern over adequacy was the principle reason indicated for tax changes for motor fuels (Figure 2-12), diesel fuels (Figure 2-13), registration fee changes (Figure 2-14), and sales or use tax adjustments (Figure 2-16). The only tax category not dominated by concern over adequacy was the weight distance tax where tax law changes were equally attributed to adequacy and concerns over equity of the tax.

Equity concerns were the second most important tax change factor for the 5 Road Fund taxes analyzed by the survey. The 25 responding states indicated that 20 tax changes focused on equity concerns compared to 16 changes attributed to administrative efficiency concerns, 6 cases driven by efforts to simplify taxes, 6 initiatives designed to reduce Road Fund taxes and only 1 change driven by competitiveness issues. The latter result (only 1 out of 150 changes) was not expected given the tendency for interest groups to suggest that the failure to change existing taxes may force them to exit a state. Tax equity was identified as a major issue for both diesel fuel and weight distance tax adjustments. It was observed that Oregon adjusted its weight-distance rate tables 4 separate times during the 1990s to increase the equity of the tax. Specific results of the survey regarding the tax change "driver" issue for each of the 5 Road Fund taxes studied are shown in Figures 2-12 through 2-16.

Figure 2-12: Purpose of Motor Fuel Tax Changes for States

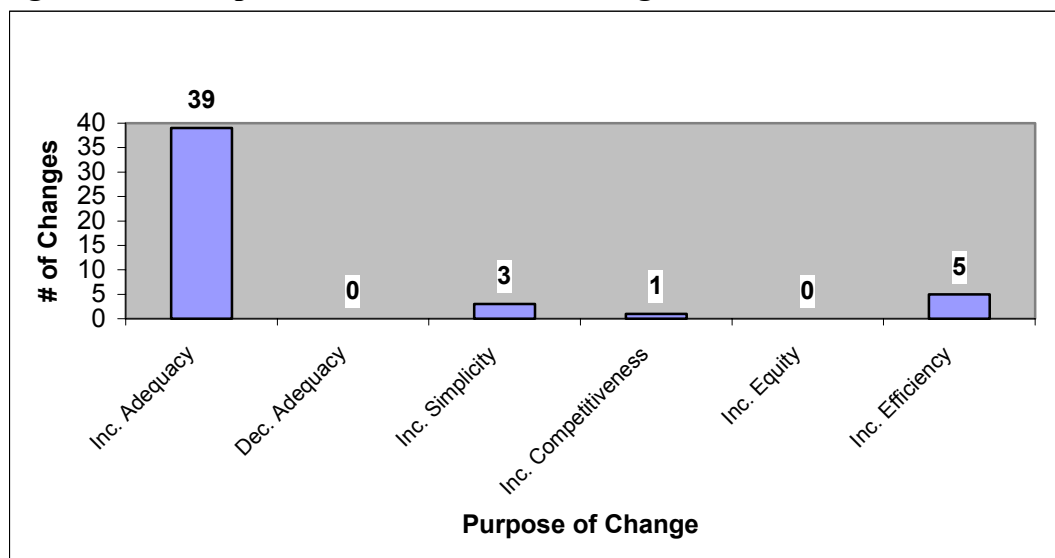


Figure 2-13: Purpose of Diesel Fuel Tax Changes for States

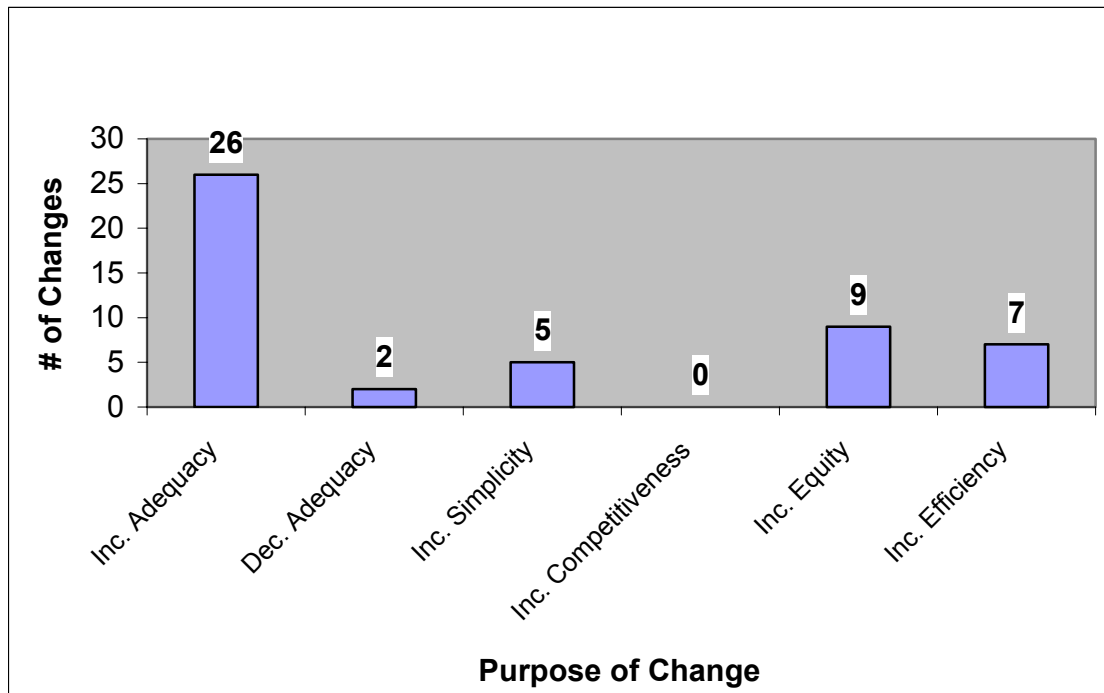


Figure 2-14: Purpose of Registration Fee Changes for States

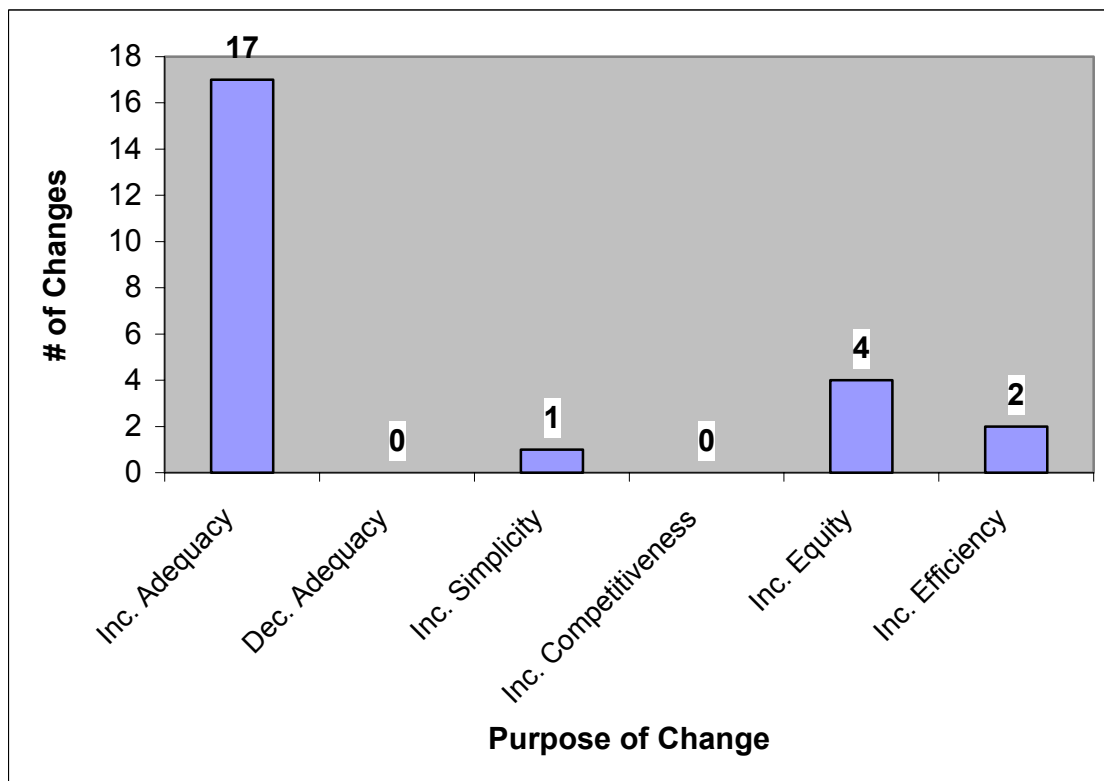


Figure 2-15: Purpose of Weight Distance Tax Changes for States

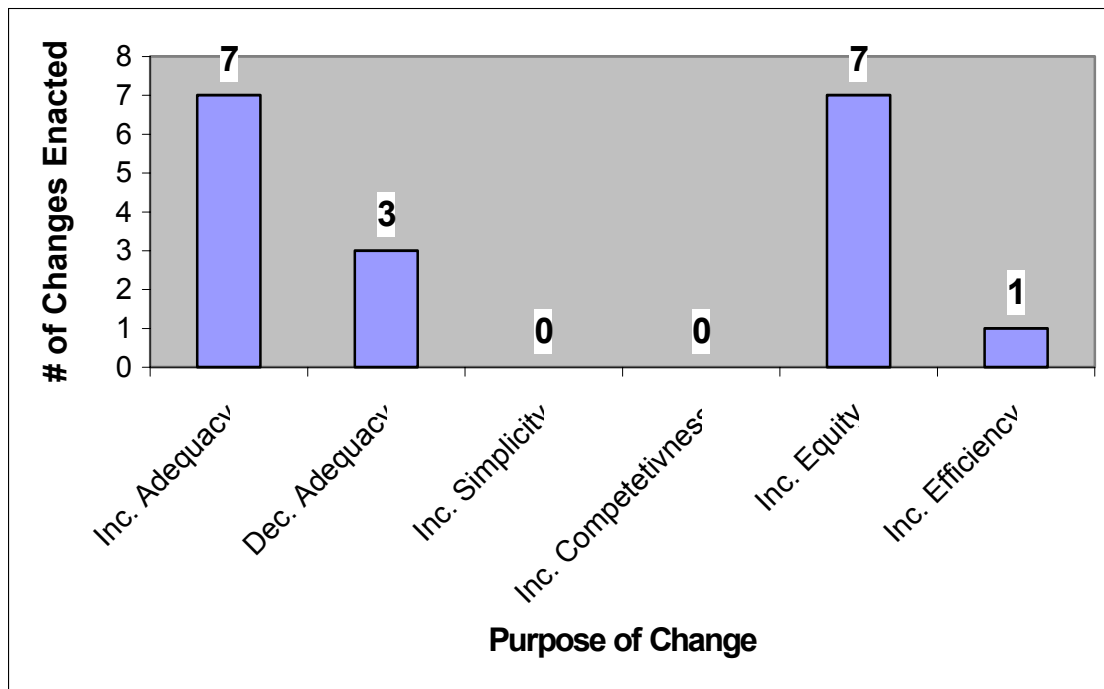
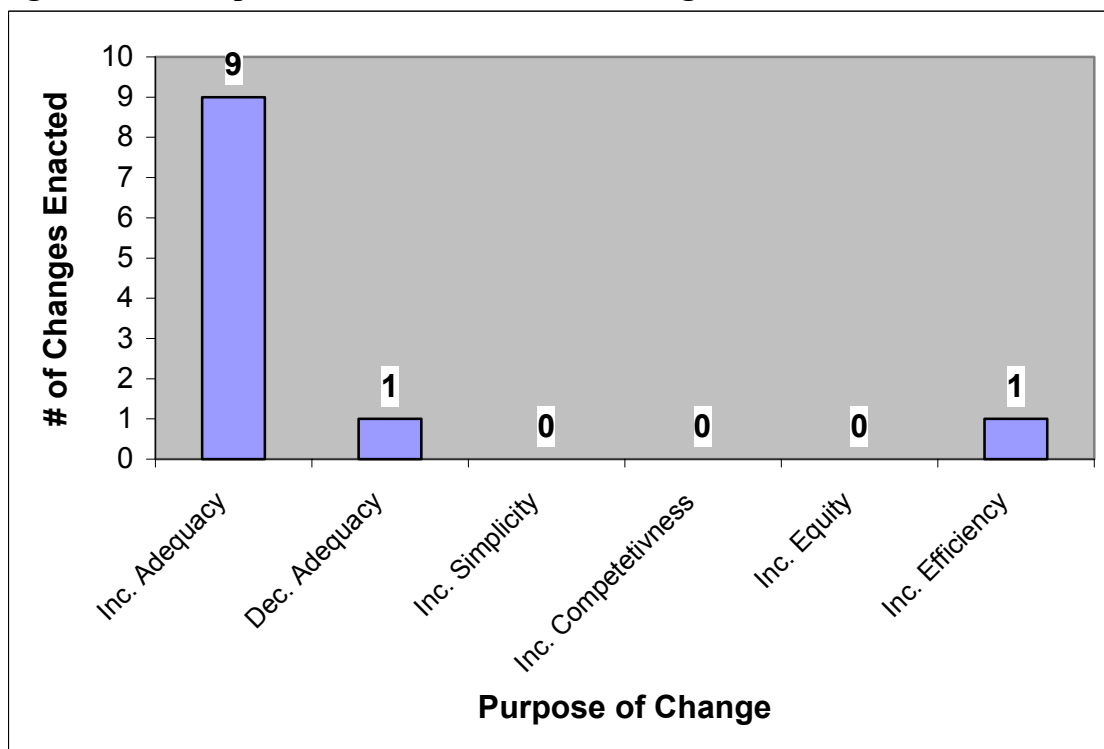


Figure 2-16: Purpose of Sales Tax / Use Fee Changes for States



The dominance of revenue adequacy over other "traditional" reasons for changing or reforming taxes was the major finding from the survey of State Departments of Transportation. Apparently, slow Road Fund revenue growth and increasing construction and maintenance costs led the states to seek new revenue. As the NCSL data indicated, 76 percent of the Road Fund tax legislative changes were designed to increase revenue or mitigate concerns over current revenue adequacy. The NCSL data also revealed that tax rate adjustments were the main vehicle used to increase revenue with administrative and base changes playing relatively minor roles in Road Fund revenue enhancements during the past decade. The national NCSL data and the survey data both suggest that while broader focused tax reforms and changes may be discussed, concerns over equity, simplicity, competitiveness and administrative efficiency seem to pale compared to state concerns over their ability to meet transportation system infrastructure demands. This finding seems consistent with previous studies cited in Chapter 1 that suggest that Road Fund adequacy continues to be a significant Road Fund financial concern in Kentucky and other states.

Summary

While the tendency of the states to increase Road Fund revenue in the 1990s was the principal finding of this portion of the current study, state revenue increase patterns are also worthy of note. For example, a majority of states increased motor fuel taxes at least once during the decade, and twenty states increased the rate of the tax twice or more during the 1990s. States often "temporarily" increased the rate for one fiscal year and then made the increase permanent the next year. In some cases, those actions were followed by additional temporary increases and so on. This pattern suggests an incremental strategy has been utilized to raise Road Fund funds, rather than a comprehensive approach. No state (at least no state was identified by this study) attempted a basic overhaul or restructuring of their Road Fund tax system during the study period. The tendency by the states to focus on "quick" or "temporary" fixes to remedy revenue deficiencies does not address the persistent nature of the Road Fund adequacy problem.

In the following chapter, a detailed description of Kentucky's Road Fund revenue structure is presented. The revenue sources that contribute to Kentucky's Road Fund will be discussed and their relative and changing contributions are also reviewed. In addition Kentucky's Road Fund tax and revenue rates are compared to those of neighboring states.

Chapter 3: Kentucky's Road Fund Tax Structure and Emerging Issues

An assessment of Kentucky's Road Fund tax and revenue system involves two steps including: 1) a review of Kentucky's current tax and revenue structure, and 2) an analysis of Kentucky's major Road Fund revenue sources, including exemptions and other special provisions which have been added over time, compliance with accepted tax principles, and comparisons of Kentucky's taxes (rates and structure) to those of adjacent states. This Chapter considers the current Kentucky Road Fund from these perspectives in an attempt to identify emerging Kentucky Road Fund revenue issues.

Kentucky's Road Fund Revenue Structure

Kentucky's Road Fund FY00 tax and revenue structure is shown in Table 3-1 by major source. In addition, the Table indicates the percent of total tax revenue accruing to the major Road Fund revenue sources for FY00 and FY91 and the percentage change in the contribution of each source to total Road Fund revenue between FY91 and FY00.

Table 3-1: Kentucky's Major Road Fund Tax Sources (FY91-FY00)
(FY00)

Source	Total Revenue	% of Total (00)	% of Total (91)	% Change(91-00)
Motor Fuels	\$423,876,351	40.0	45.6	-5.6
Usage Tax	\$409,395,574	39.0	29.6	+9.4
MV Reg.	\$ 78,310,873*	7.4	7.8**	- .4
Weight Dist.	\$ 75,144,201	7.1	8.0	- .9
MV Op. Lic.	\$ 5,689,329	.5	1.3	- .8
Other	\$ 62,879,098	94.0	92.3	+1.7
Total	\$1,055,295,426			

* Includes state share of passenger vehicle, commercial and proportional registration fees.

** MV Registration fees are for FY92 due to data availability

Note: Total Road Tax Revenue = \$1,055,295,426 (00) and \$717,692,214 (91)

As shown in Table 3-1, Kentucky's Road Fund has undergone structural changes during the 1990s. For example, motor vehicle usage increased its share of total Road Fund tax revenues by 9.4 percent while motor fuels' share of total Road Fund tax revenues declined by 5.6 percent. The weight distance tax's contribution declined slightly (.9 percent) while Road Fund tax revenue attributable to motor vehicle registration, and motor vehicle operator's licenses, and fees declined slightly during the 1990s (.4 and .8 percent, respectively). While the percentage shares of total tax revenue attributable to the

major tax sources were changing during the decade, Road Fund tax revenues were growing at an average of 3.8 percent per year for the decade of the 1990s. By comparison, Kentucky's General Fund growth averaged 6.3 percent per year [GOEA, July 2000] and Kentucky's economy, as measured by total personal income growth, was expanding at an average rate of 5.5 percent for the decade [BEA, web site]. A recent analysis of the elasticity of Kentucky's Road Fund indicated an average elasticity of approximately 1 for the period 1980 through 1997 while the elasticity for Kentucky's General Fund for the same period was estimated to be 1.22 [Zimmer, et al., 1999]. The same study estimated the elasticity for motor fuels to be .85 while the comparable elasticity value for the motor vehicle usage tax was 1.3. The differential elasticities partially explain the change in the relative contributions to total Road Fund tax revenue indicated by Table 3-1.

The relative inelasticity of the motor fuels portion (gasoline) of the Road Fund revenue base is principally attributable to the increased fuel consumption efficiency of automobiles. As a result of new technology and engine design, motor fuel consumption has not increased in proportion to the increase in the number of vehicles or miles traveled. By contrast, the motor vehicle usage tax that is assessed at a rate of 6 percent of the "retail price" of a motor vehicle has realized a more elastic growth pattern. The greater elasticity of the motor vehicle usage tax (as compared to the motor fuels) is generally attributable to two factors including: 1) growth in the number of motor vehicles sold, and 2) an increase in motor vehicle "retail" sale prices.

The rapid growth in rental and lease vehicle usage taxes reflects growth in rental vehicle use and in the lease vehicle industry. Motor vehicle price increases have encouraged consumers to lease vehicles rather than to purchase cars. Consequently, Kentucky has experienced a major increase in this revenue source. The rapid growth has been driven by both an increase in the rental and lease fleet but also the increase in motor vehicle price levels. To some extent, the growth in the rental and lease vehicle usage tax revenues has been at the expense of motor vehicle usage fees (attributable to automobile sales). The other structural shifts reflective of relative contributions may be somewhat illusory and attributable to the more rapid expansion of the contribution of the usage tax rather than a decline in revenue from these minor sources.

Kentucky's Major Road Fund Taxes and Revenue Sources: Status and Issues

Motor Fuels Taxes

Motor fuels taxes include both gasoline taxes and "special"¹ fuels (principally diesel fuel). Of the \$424 million motor fuels tax revenue generated in FY00, approximately 26 percent is attributable to special or diesel fuel sales with the remaining 74 percent coming from gasoline consuming vehicles. Motor fuel tax revenues grew at an average rate of only 2.4 percent for the decade [See Table 3.2] of the 1990s compared to

1. Technially, "Special Fuels" are defined to include all combustible gases and liquids capable of being used in motor vehicles, except gasoline, as defined in KRS 138.210. However, the diesel fuel is the major source of special fuel tax revenue.

Table 3.2: Motor Fuel Tax Revenue by Source and Percentage Growth for the 1990s
(Millions)

Year	Gasoline	Special (Diesel)	Total Motor Fuel Receipts	Percentage Change
FY 91	\$276.7	\$50.8	\$327.5	-2.7%
FY 92	\$281.9	\$56.6	\$338.5	3.4%
FY 93	\$279.8	\$73.8	\$353.7	4.5%
FY 94	\$292.9	\$65.6	\$358.4	1.4%
FY 95	\$297.2	\$76.1	\$373.3	4.2%
FY 96	\$299.3	\$78.8	\$378.1	1.3%
FY 97	\$305.8	\$84.9	\$390.7	3.3%
FY 98	\$307.9	\$88.2	\$396.1	1.4%
FY 99	\$333.4	\$94.4	\$427.8	8.0%
FY 00	\$334.5	\$89.4	\$423.9	<u>- .9%</u>

Average =2.4%

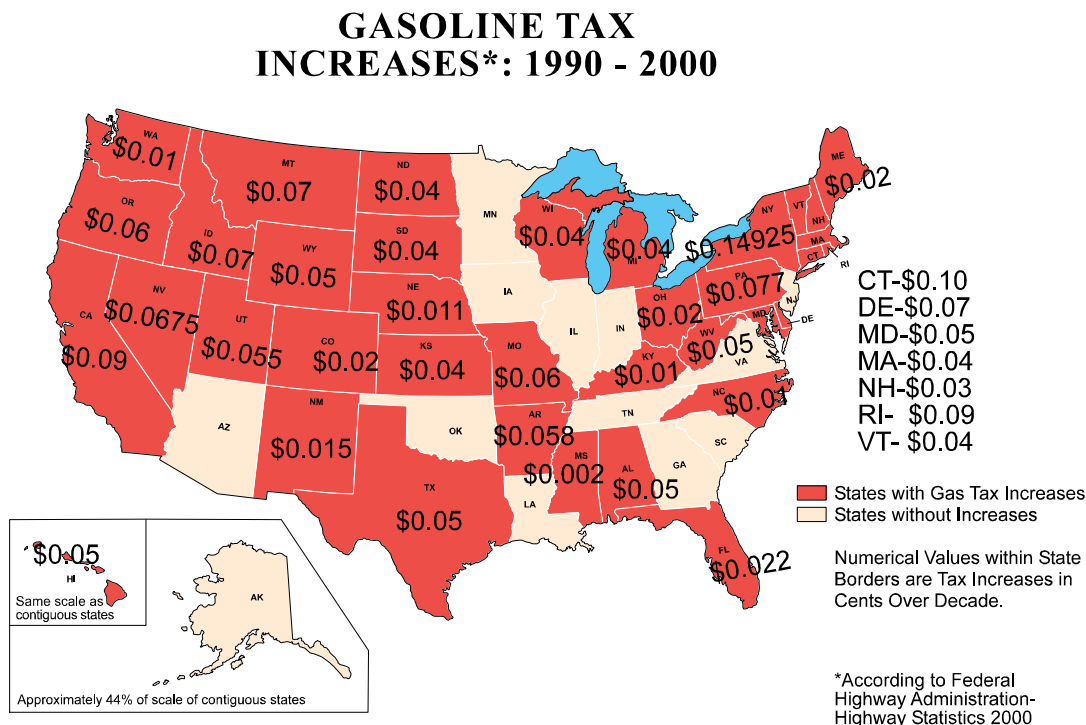
Source: Governor's Office for Economic Analysis, Kentucky Quarterly Economic & Revenue Report: Fourth Quarter Report, FY 2000 and data from the Kentucky Revenue Cabinet

the previously noted overall Road Fund revenue growth of 3.8 percent for the same period [GOEA, July, 2000]. As indicated in Chapter 2, the slow growth and inelastic nature of the motor fuels taxes has prompted states to periodically raise the tax rate on motor fuels. In fact, 37 states and the District of Columbia raised their gasoline taxes by an average of 4.65 cents per gallon in the 1990s [See Figure 3-1]. It is also interesting to note that all fifty states except Alaska have increased their gasoline tax rates since 1987. It should be noted, however, that the increased tax revenues did not, in all cases, flow to the state's Road Fund. For example, Kentucky's Petroleum Storage Tank Environment Assurance Fund fee was increased from .4 cents to 1.4 cents per gallon. That fee is used for storage tank cleanup and does not benefit the Road Fund. While Road Fund adequacy concerns probably drove the majority of motor fuels tax adjustments among the states in the 1990s, other structural and administrative changes were also enacted.

Motor fuels taxes represent a proportionate share of the total fuel price and are paid by the "receiving dealer" or when the fuel enters the dealer's storage facility. It is noted, however, that under Kentucky statutes, various parties can be designated as dealers under KRS 138.210 (2). So while the general statement that the motor fuels tax is paid at the "wholesale" level is true, the "receiving dealer" who eventually remits the tax may or may not be the true wholesaler. For example, motor fuel transactions might involve several dealer-to-dealer transactions before the tax is actually paid by the last "receiving dealer." The latter dealer benefits from the 2.25 percent shrinkage allowance [KRS 138.270 (1)] and interest income on tax revenues as such taxes do not have to be remitted to the Revenue Cabinet for 25 days following the close of the month in which

the dealer receives the fuel. The motor fuels tax is subsequently passed on to the consumer at the time that the fuel is purchased as part of the retail price. There is considerable variation among the states in the rates applied to the various motor fuel types (gasoline, diesel, gasohol and others). There is also variation in the tax or fee type (ie., excise, sales, motor carrier and the like) used by the states to acquire Road Fund revenues from the operation of motor vehicles [See Zimmer, et. al., p. 10].

Figure 3.1:



In addition to the variations among the states in motor fuel tax rates, there is also variation in state policies regarding the collection and other administrative processes associated with state motor fuels taxes. Among the latter differences is the “point of taxation” of motor fuels. The point of taxation can also differ for the states and the federal government. Because of the complexity of the channels of motor fuels distribution, several points of taxation are available. For example, the Federal government’s point of taxation is at the terminal rack. With this point of taxation, the tax is paid by the owner of the fuel at that point (terminal rack) in the distribution system and the owner could be the terminal operator, producer or wholesaler. This point of taxation was established in 1993 as part of the Omnibus Budget Reconciliation Act of 1993 which, incidentally, reduced the number of taxpaying entities from 28,000 to approximately 2,000 when the point of taxation was moved from the wholesaler to the terminal rack [CSG, 1996 and Zimmer, et. al., 1999].

As suggested, the states tax motor fuels at different points including the terminal, the distributor (loading rack or wholesaler), or retailer. Some states do not specify the specific point of taxation but simply tax on a “first sale or receipt” basis. As indicated by a 1996 Council of State Governments study [CSG, 1996], 6 states use the first sale or receipt basis, 30 impose their tax at the distributor level, 7 states tax at the terminal, and 7 states tax at the retail level for gasoline. For diesel fuel, 8 states tax at the first sale or receipt, 28 states tax at the distributor, 7 states tax at the terminal, and 7 states tax at the retail point in the diesel fuels distribution system. Kentucky “officially” taxes at the wholesaler level. However, as previously noted, the “receiving dealer” or the dealer who actually pays and remits the tax may not be a true wholesaler. This is due to the fact that Kentucky’s statutes define wholesalers or dealers in general terms and encompass dealers who are true wholesalers as well as dealers who purchase and resale motor fuels “tax free”. Unfortunately, there has been limited research regarding the impact of the “point of collection” on state motor fuels receipts. Some argue that moving the point of collection closer to or to the “rack” could reduce tax evasion and, simultaneously, simplify the collection process by reducing the number of entities involved in the collection process.

Under Kentucky statutes passed in 1980 and amended in 1982, the gasoline portion of the motor fuels tax is levied at a rate of 9 percent of the wholesale price of gasoline with a “minimum” wholesale price of \$1.11 per gallon (in other words if the price is below \$1.11, the price is “assumed” to be \$1.11 per gallon for tax calculation purposes) creating a “floor” of 10 cents per gallon and a “ceiling” of 9 percent of the wholesale price up to a maximum of \$1.50 per gallon or 13.5 cents per gallon. If the wholesale price rises above \$1.50 per gallon, the tax will still be 13.5 cents per gallon. In addition, a supplemental highway user tax of 5 cents per gallon was enacted in 1986 raising the minimum tax to 15 cents per gallon. The diesel or special fuels tax rate is determined by the same formula. Specifically, the tax is set at 9 percent of the wholesale price with a minimum “assumed” wholesale price of \$1.11 and a “maximum” price of \$1.50. In 1986, a “supplemental highway user tax” of an additional 2 cents per gallon was approved, providing total minimum special or diesel fuels tax of 12 cents per gallon.

An additional motor fuels “surtax” is imposed at a rate of “two percent of the average wholesale price on gasoline and 4.7 percent on special fuels, but not less than 2.2 cents per gallon on gasoline and 5.2 cents per gallon on special fuels, on the amount used in operations on the public highways of the Commonwealth” [Kentucky Revenue Cabinet, Tax Facts, 2000]. The special fuels surtax is, however, only imposed on heavy equipment motor carriers (commercial trucks or commercial tractor-trailer combinations having a total of two or more axles and a declared gross weight of over 26,000 pounds. [KRS 138.660]

Special Provisions and Tax Expenditures

Tax expenditures are defined as “special provisions, exclusions, deductions, credits, deferrals, and preferential rates in tax law that result in a loss of tax revenue” [Tax Expenditure Analysis, 2000-2002, p. 1]. Such tax expenditures reduce the revenue

yield for various taxes and can also impact their growth, neutrality, and ease of administration. Therefore, an assessment of their revenue impact and characteristics are worthy of a tax policy review. For the gasoline tax, tax expenditures were estimated to be \$9.1 million in FY00 and special fuels or diesel tax expenditures were estimated to be \$45.2 million [Tax Expenditure Analysis, 2000-2001, p. 28]. The estimated tax expenditures for the gasoline and special fuels portion of Kentucky's motor fuels taxes are shown in Tables 3-3 and 3-4, respectively.

Table 3-3: Total Gasoline Tax Expenditures in FY 2000

Tax Expenditure Type	Estimated Expenditures
1. Dealer's Monthly Reporting Allowance	\$ 7,600,000
2. U.S. Government Exemption	\$ 133,000
3. Agricultural Refund	\$ 22,000
4. Aircraft Refund	\$ 214,000
5. Watercraft Refund	\$ 800,000
6. Bus, Taxicab & Senior Citizen's Program Refunds	\$ 337,000
Total \$ 9.1 Million	

Source: Commonwealth of Kentucky Tax Expenditure Analysis: FY 2000-2002, pgs. 27-30

Table 3-4: Total Special Fuels Tax Expenditures in FY 2000

Tax Expenditure Type	Estimated Expenditures
1. Non-highway Use	\$ 25,600,000
2. Railroad Companies	\$ 13,900,000
3. Agricultural Use	\$ -
4. Dealer's Monthly Reporting Allowance	\$ 2,800,000
5. Residential Heating	\$ 1,500,000
6. Bus, Taxicab and Senior Citizen's Program Refunds	\$ 450,000
7. State and Local Government Use	\$ 230,000
8. Religious, Charitable or Educational Use	\$ 163,000
9. Watercraft	\$ 44,000
10. U.S. Government	\$ 490,000
Total \$ 45.2 Million	

Source: Commonwealth of Kentucky Tax Expenditure Analysis: FY 2000-2002, pgs. 113-118.

Tax principles provide guidance for the assessment of the validity or appropriateness of enacted tax expenditures. For example, certain special fuel

exemptions such as those for “non-highway use” and “residential heating” seem appropriate based on the “benefits received principle” as these activities do not use or benefit from the state’s system of highways and roads. By contrast, the special exemption for buses and taxicabs seem less justified relative to this principle as such vehicles do receive benefits from the expenditures made on public roads. Such exemptions were, apparently, justified for other less obvious reasons. As special exemptions are often enacted without full scrutiny and evaluation, they may be appropriate candidates for “sunset” provisions that would enable the General Assembly to periodically determine if the special exemptions are still justified in light of Road Fund needs and changing economic and policy conditions.

Other Tax Policy Issues and Concerns

Interstate Commerce Commercial Carrier Fuels Collection

The efficient and equitable administration of Kentucky’s motor fuels tax program for commercial carriers involved in interstate commerce provides special challenges for the states and Kentucky. States have different motor fuel tax rates and special tax policy treatments or exemptions (such as Kentucky’s “tax expenditures”). State fuel tax collection processes were standardized and simplified by the enactment of Section 4 of the Intermodal Surface Transportation Act of 1991 (ISTEA). This section called “The Motor Carrier Act of 1991” required all states to participate in the International Fuel Tax Agreement (IFTA) by September, 1996 (which Kentucky did).

This agreement establishes uniform standards for reporting motor fuel use and miles traveled by state. Once prorated motor carrier fuel use is determined, state specific tax liabilities can be calculated and reconciled. More specifically, under the agreement, an interstate commercial carrier provides quarterly reports of miles traveled by state, total fuel consumption, and average miles per gallon to the appropriate state agency in the state that its trucks are registered for fuel tax reporting (called the base state). That state maintains a monthly accounting ledger of data required to determine the firm’s tax liability by state. In making that determination, Kentucky, along with 16 other states, utilizes the services of the IFTA Regional Processing Center (RPC). The Center utilizes the “base” state data and its information system to determine state taxes due by state or refunds due to carriers because of overpayment on a monthly basis. As indicated, the reconciliation process may involve both additional payments as well as refunds, depending of the taxes paid when purchasing fuel. For example, if a vehicle driver acquires fuel in a “high” tax state but utilizes that fuel in a “low” tax state, the firm may deserve a refund for the overpayment of taxes and vice-versa. In Kentucky, funds to be dispersed to other states are deposited in the motor fuels normal use and surtax fund and appropriately distributed to the other states based upon miles traveled and tax rates applicable to those states.

Each IFTA state is required to participate in a compliance review every four years to insure that they are meeting the requirements of the IFTA agreement. The review team is composed of a compliance officer from IFTA and an administrator and auditor from

another state. The findings of the review are examined by an IFTA Compliance Review Committee. The Committee issues rulings designed to improve the processing of IFTA transactions, if appropriate, based on those findings and responses from the "reviewed" state. The IFTA agreement also allows a state to formally dispute the actions of another state if they feel their tax laws have not been appropriately complied with by the IFTA process. While the IFTA agreement has simplified commercial carrier compliance with differential state motor fuel tax systems, additional follow-up and auditing procedures may be appropriate to assure compliance with applicable state motor fuel tax laws.

Dyed Fuel Program

Concern regarding the effectiveness of the enforcement of federal diesel fuel tax exemption provisions led to the establishment of a "dyed fuels" program in 1993. The 1993 Omnibus Budget Reconciliation Act [Pub. L. 103-66] exempted diesel fuel from taxation at the federal point of taxation, the terminal, if the Internal Revenue Service (IRS) determined that the fuel was to be used for nontaxable purposes and was dyed red. The fuel dying program makes it easier to determine if nontaxable fuel (fuel used for off road use and fuel used by state and local government vehicles, local transit buses, school buses, and in vehicles used by other organizations with special exemptions from federal fuels taxation) is being used for taxable purposes. In other words, dyed fuels may not be legally used to drive vehicles using public roads unless the vehicle is being used for an "exempt" purpose. Individuals or firms using "clear" fuel for an exempt purpose must apply for a refund of federal taxes with documentation from the seller indicating that the fuel was sold without dye. Significant penalties are imposed on individuals or firms using dyed fuel for a taxable purpose [CSG, 1996, p. 14].

Many states are cooperating with the federal government in the enforcement of the dyed fuels program by conforming their statutes to the IRS definitions of taxable and nontaxable uses of diesel fuel for ease of enforcement. In a survey of southern and neighboring states conducted as part of this study, it was determined that several states have active cooperative enforcement agreements with the IRS. Alabama, Georgia, Mississippi, Missouri, North Carolina, and Tennessee were among the states reporting such agreements. Dyed fuel enforcement programs had been adopted (and personnel had been assigned to the task) by Alabama, Illinois, Indiana, Georgia, North Carolina, Mississippi, Missouri, Ohio, Tennessee, and West Virginia.

The fuel samples are typically analyzed by the states in cooperation with the IRS. Offenders, who use dyed fuels for motor vehicles operating on public highways, are subject to fines imposed at the rate of \$1,000 or \$10 per gallon, whichever is greater. House Bill 911, passed by the Kentucky General Assembly in 2000, permits the Kentucky Revenue Cabinet to test vehicles for dyed fuels. However, Kentucky has not established an "active" dyed fuels enforcement program and appears to be in the minority of surrounding and southern states regarding this issue. Kentucky may want to investigate the effectiveness of the dyed fuel enforcement programs of the surrounding states to determine if they are cost effective in increasing motor fuel tax compliance. If

they are found to be effective programs, Kentucky may want to fund a dyed fuel enforcement program in an effort to reduce motor fuel tax evasion by this method.

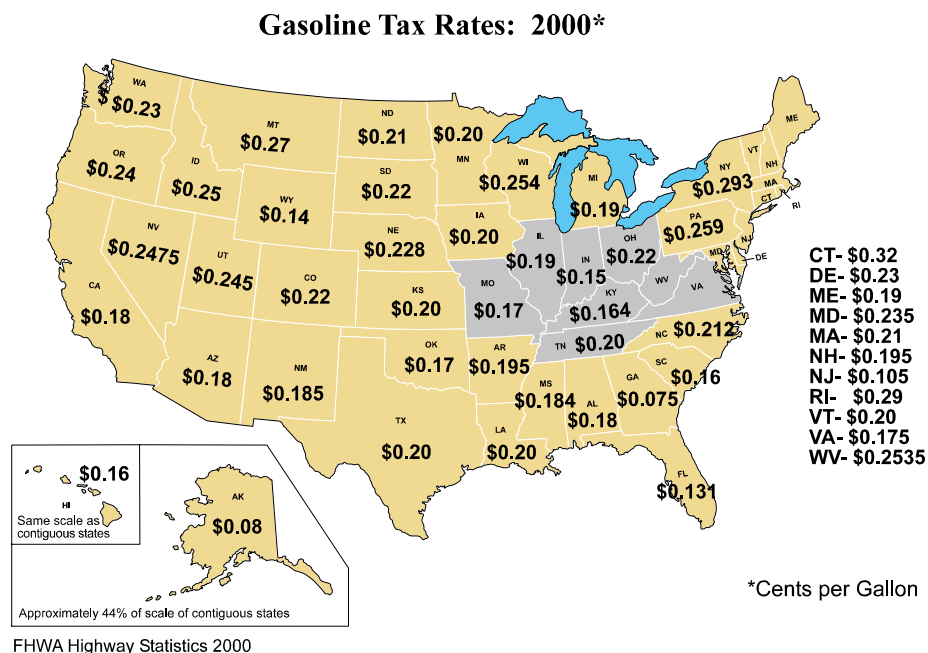
Verification of Off-Road Fuel Use

In addition to empowering the Revenue Cabinet to test vehicles for compliance with federal dyed fuel requirements, House Bill 911 which passed in 2000 fundamentally changed Kentucky's approach to administering the off-road motor fuels tax exemption. Prior to HB 911, individuals and firms paid taxable rates for motor fuels (gasoline and diesel fuel) and obtained the off-road exemption by filing a refund request with the Revenue Cabinet. The refund request required the submission of data regarding the nature of the off road use as well as other applicant information. The database established via this process was useful to the Cabinet in insuring the validity of the requests. However, concerns were raised by off road users regarding the processing time required to obtain their refunds. This concern was a major driver for the enactment of the HB 911 affidavit off road use verification process. The verification process reduced the ability of Revenue Cabinet to insure compliance because the audit trail for non-highway diesel fuel transactions was eliminated. This Revenue Cabinet concern was rectified by the passage of HB 662 in the 2002 session of the General Assembly that redefined off-road fuel as dyed diesel fuel.

Comparison to Surrounding States

In setting tax rates, states are appropriately concerned with state-to-state rate comparisons. If a state's rates are higher than those of surrounding states, the state

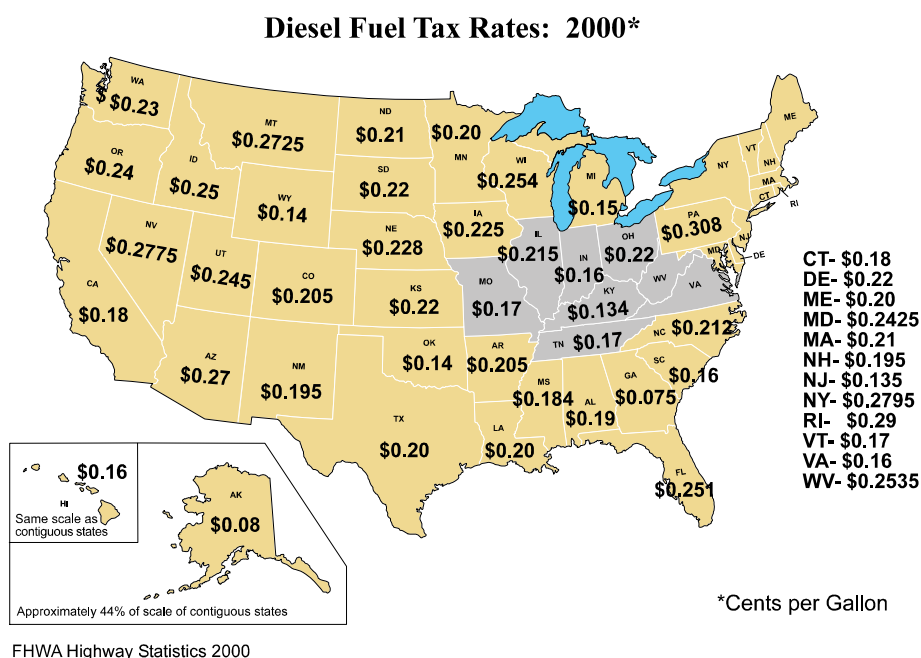
Figure 3.2:



may be competitively disadvantaged. Likewise, if a state's rates are lower than national averages or those of surrounding states, opportunities may exist for upward rate adjustments if additional revenue is needed. Figure 3-2 provides a comparison of gasoline tax rates for the states. The 2000 FHWA data indicate that Kentucky's gasoline tax rate is relatively low as only Indiana, of the states surrounding Kentucky, had a lower gasoline tax rate than Kentucky. Also, the average state gasoline tax rate in 2000 was 20.17 cents per gallon compared to Kentucky's nominal rate of 16.4 cents. It should be noted that Kentucky's nominal 16.4 cents rate tends to overstate Kentucky's rate as the nominal 16.4 cents includes a 1.4 cents Petroleum Storage Tank Environmental Assurance Fee (PSTEAF). It should also be emphasized that state-to-state comparisons are difficult due to periodic rate changes (for instance, IFTA accepts rate changes from its 58 jurisdictions on a quarterly basis) and difficulties involved in obtaining comparable data for all states. Some states have enacted special fees such as Kentucky's PSTEAF which increase their nominal "at the pump" rates while other states impose sales taxes that are added to their per gallon gasoline taxes. Still other states have gasoline tax structures that are tied to the consumer price index and, thus, vary from period to period. Such complex gasoline tax structures suggest that care should be exercised when rate comparisons are made whether FHWA or other data are used for such comparisons.

As shown in Figure 3-3, Kentucky's tax rate on diesel fuels is nearly three cents lower than the rates of its neighbors. The national diesel fuel tax rate was 20.37 cents per gallon of diesel fuel in 2000 [FHWA data-2000]. Of all our neighboring states, only Ohio, West Virginia, and Illinois surpass the national average tax rate on diesel fuel.

Figure 3.3:



As indicated in Chapter 2 of this report, the nationwide slow growth of the motor fuels tax has created challenges for the states in obtaining sufficient Road Fund revenue to support desired highway maintenance and modernization efforts. In fact, the low elasticity of the motor fuels tax has led to an estimated total of 93 increases in the gasoline tax by the states in the 1990s by an average of 2.086 cents per gallon. Kentucky, likewise, has experienced slow motor fuels tax growth relative to personal income or construction cost growth. Road maintenance and modernization costs have grown at an average of 3 percent per year from for the 1990s [FHWA, “Price Trends for Federal-aid Highway Construction”].

The mismatch of road construction and modernization costs relative to motor fuels tax growth (one of the two major Road Fund revenue sources) has fostered frequent attempts to increase motor fuels tax rates in order to maintain Road Fund purchasing power. While the mismatch of Road Fund revenues to Road Fund revenue demands can be managed by periodic adjustments of the tax rate overtime, some states have chosen to enact a form of “indexing” of motor fuels taxes to better align the cost of road system maintenance and modernization to available revenues. For example, Florida annually adjusts its tax rate based on the consumer price index [State of Florida website] while a portion of Wisconsin's motor fuel tax is adjusted based on maintenance cost changes, sales volume, or cost of fuel to state government [FTA website].

Motor Vehicle Usage Tax

The motor vehicle usage tax which was passed in 1936 is, in reality, a special sales tax on new, used, leased, and rental vehicles. The term "usage tax" is "construed" (by statute) to be a tax on “the privilege of using a motor vehicle upon the public highways of this Commonwealth and shall be separate and distinct from all other taxes imposed by this Commonwealth” [KRS 138.455]. The general sales tax is a General Fund tax and all “sales tax” revenue flow to the state’s General Fund. In fact, prior to the passage of the “anti-diversion amendment” [Section 230 of Kentucky Constitution] of 1945, the usage tax went to the General Fund. That amendment specified that “No money derived from excise or license taxation relating to gasoline and other motor fuels, and no moneys derived from fees, excise or license taxation relating to registration, operation, or use of vehicles on public highways shall be expended for other than the cost of administration, statutory refunds and adjustments, payment of highway obligations, costs for construction, reconstruction, rights of way, maintenance and repair of public highways and bridges, and expense of enforcing state traffic and motor vehicle laws.” The intent of the amendment was to secure funds for the financing of Kentucky’s system of highways and roads. With the permanent tie of the motor vehicle usage or sales tax to the Road Fund, it emerged as the second most important source of Road Fund revenue.

While, as indicated, the usage tax is a form of a sales tax, the tax is administered in a slightly different manner than a general sales tax. General sales taxes are normally collected by the retailer, on behalf of the state, while the motor vehicle usage tax is typically paid by the buyer when he or she registers the vehicle. If the usage tax is paid at the time of sale (and the usage tax appears to be part of the transaction), the dealer, in

reality, is simply handling the usage tax payment for the purchaser as a courtesy. With car rentals and leases, the usage tax payment mirrors a regular sales tax transaction as the leasing or rental agent collects the tax by adding the usage tax (calculated on a pro rata basis) to the cost of the lease or rental payment and transmits the tax to the state.

Table 3-5 displays the motor vehicle usage tax revenue and growth rates in the 1990s. Motor vehicle usage tax revenues are disaggregated into two categories including: 1) rental usage taxes including leasing fees, and 2) other motor vehicle usage taxes which includes usage taxes collected on the sale of new and used vehicles. Of the \$50 million lease and rental usage tax revenue received during FY00, approximately \$10 million was from rental related usage taxes with the residual (approximately \$40 million) coming from lease based usage tax payments. Usage tax collections from the sale of vehicles in FY00 of \$359 million, approximately 40 percent was from new vehicle sales while approximately 60 percent was realized from used vehicle transactions.

Table 3-5: Motor Vehicle Usage Tax Revenues for the 1990s

Fiscal Year	Rental/Lease	(Millions)		% Growth
		Regular	Total	
FY91	\$ 7.3*	\$205.1**	\$212.3	NA
FY92	\$ 9.1	\$209.6	\$218.7	3 %
FY93	\$12.1	\$233.5	\$245.7	12.3 %
FY94	\$17.1	\$278.2	\$295.2	20.1 %
FY95	\$23.0	\$283.8	\$306.8	3.9 %
FY96	\$29.1	\$298.6	\$327.6	6.7 %
FY97	\$36.6	\$304.9	\$341.5	4.2 %
FY98	\$41.5	\$325.3	\$366.8	7.4 %
FY99	\$44.5	\$331.2	\$375.7	2.4 %
FY00	\$50.0	\$359.4	\$409.4	8.9 %

Average Growth Rate = 7.7 %

* The tax rate was reduced from 8 percent to 6 percent.

** The tax rate was increased from 5 to 6 percent.

Source: OSBD, Governor's Office for Economic Analysis, Kentucky Quarterly Economic & Revenue Report: Fourth Quarter Report, Fiscal Year 2000, July, 2000, p. 42.

Because the motor vehicle usage tax is based on 6 percent of the value of the vehicle at the time of purchase, procedures to accurately and equitably determine the value of the vehicle at the time are necessary. Kentucky's standardized procedures for determining the retail price (usage tax base) were changed in 1998. Until 1998, the usage tax base or "retail price" of a new vehicle was set at 90 percent of the Manufacturer's Suggested Retail Price (MSRP) and used car "retail prices" were established at "book price" as determined from the average retail values indicated by price reference manuals. House Bill 74 passed during the 1998 Session of the Kentucky General Assembly

changed the standard practice for determining retail price. Rather than utilizing a universally recognized retail price reference such as MSRP or a price reference manual to establish the price for usage tax calculations, amendments to KRS 138.450 require the buyer and seller of a vehicle to sign an affidavit establishing the sales or “retail” price. For vehicles registered for the first time, the seller (or his agent) has to file an “affidavit” which indicates the selling price of the vehicle for usage tax calculations (KRS 138.460). If an affidavit, signed by both the buyer and seller is not available, retail price is determined as 90 percent of MSRP or 81 percent of the MSRP for new trucks of gross weight in excess of ten thousand pounds. If an affidavit is not available in the case of a used motor vehicle, “retail price” is determined by using the price reference manuals prescribed by the Revenue Cabinet. It is noted that many new car sale usage tax payments are still based on the MSRP, due to the complexities of determining retail prices with negotiated price situations.

The retail price for used vehicles is determined by the total consideration paid. A trade-in credit is allowed and total consideration values must also be accompanied by a notarized affidavit signed by both the buyer and seller. The “retail price” of used vehicles registered for the first time in Kentucky by a Kentucky resident is calculated as the “average trade-in value” for the vehicle as determined by the Revenue Cabinet’s reference manual. A major reason for the change in the manner of determining the usage tax base value was concern that reference manual values may exceed the “market” value of some used cars. The use of the affidavit, however, has led to concerns regarding the accuracy and equity of using “self reported” sale prices. Without additional documentation, the Revenue Cabinet has limited ability to audit the legitimacy of the affidavit reported sale prices.

The motor vehicle usage tax is also paid on leased and rented vehicles. A holder of a permit to operate as a U-Drive-It (firm) under KRS 281.61 may pay the regular usage tax [KRS 138.460] or select to pay the usage tax as 6 percent of the gross rental or lease charge paid by the lessee (under KRS 138.463). Gross rental charges include only time and mileage charges. The “U-Drive-It” tax is an obligation of the lessor but may be passed on to the lessee as an additional fee. The “U-Drive-It Tax” is remitted by the lessor to the Transportation Cabinet on a monthly basis [KRS 138.463].

Special Provisions and Tax Expenditures

For FY00, total motor vehicle usage tax expenditures or special exemptions have been estimated to be approximately \$67.3 million (see Table 3-6). The tax expenditures have been enacted over time (1968 to 1998) and have a variety of purposes ranging from exemptions for charitable organizations to governmental exemptions and special enterprise zone tax expenditures. Specific exemptions or tax expenditures and estimated FY00 costs are shown in Table 3-6.

Commercial Carrier Usage Tax

Under current tax statutes, Kentucky applies its 6 percent usage tax to the “retail purchase price” of trucks and commercial carriers involved in both intrastate and interstate commerce. The tax is imposed on vehicles registered in Kentucky. Under the International Registration Plan, firms may decide which state to register their vehicles in (and pay the usage tax if registered in Kentucky) regardless of where the vehicle is operated. The Kentucky Revenue Cabinet has estimated the usage tax “yield” on interstate commerce vehicles over 55,000 pounds to be about \$5.4 million in calendar year 2000. Usage tax receipts on all commercial carriers over 55,000 pounds produced approximately \$8.1 million. The Cabinet also estimated that the usage tax produces approximately \$19.5 million from the all sales of commercial vehicles of 26,000 pounds

Table 3-6: Motor Vehicle Usage Tax Expenditures in FY00
(Millions)

Tax Expenditure Type	Estimated Expenditures
1. Trade-In Allowance (Used Vehicles)	\$39.1
2. Immediate Family Member	\$10.5
3. Governmental Exemption	\$ 6.0
4. Enterprise Zone Exemption	\$ 3.2
5. Military Exemption	\$ 2.9
6. Repossessed Exemption	\$.5
7. Transfers by Will or Court Order	\$ 1.1
8. Educational & Charitable Organizations	\$.7
9. Enterprise Zone Exemption (U-Drive-It Tax)	\$ 3.2
10. Commercial Motor Vehicle Exemption	\$ 0
11. Change in Business Structure	\$ 0
12. Transfers Between a Limited Liability & Its Partners	\$ 0
13. Transfers Between A Subsidiary & a Parent Corp.	\$.1
14. Partnership Interests	\$ 0
15. Insurance Company Transfers	\$ 0
16. Adapted Equipment for Physically Hand. Persons	\$ 0
Total \$67.3 Million	

Source: Finance and Administration Cabinet, Commonwealth of Kentucky, 1999, p. 61-68.

of licensed weight (intra and interstate vehicles) in calendar year 2000 [Revenue Cabinet testimony on August 7, 2001 before the Interim Joint Committee on Transportation].

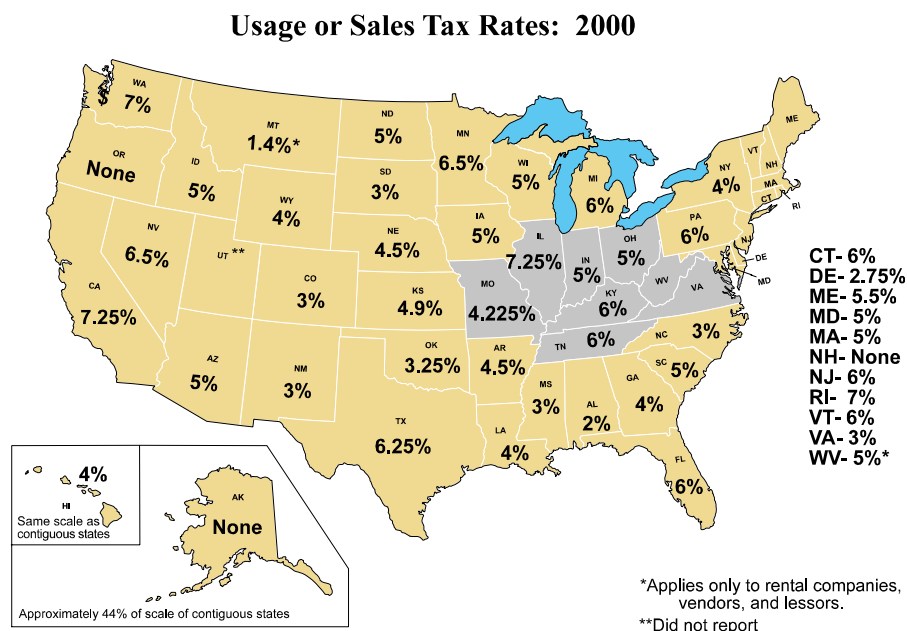
Concern regarding Kentucky’s tax policy regarding commercial carriers or trucks involved in interstate commerce emerged in the 1990s. The issue arose from comparisons of Kentucky’s motor vehicle sales and/or usage tax policy with those of surrounding states. Six surrounding states (Illinois, Indiana, Missouri, Ohio, Virginia, and West Virginia) provide broad-based sales and usage tax exemptions for trucks over 55,000 pounds purchased by common carriers. Tennessee also provides a sales/usage tax exemption for vehicles and trailers primarily used in interstate commerce but applies their sales tax to repair parts for common carriers – as does Kentucky. Kentucky’s usage tax is

imposed on the motor trucks or truck-tractors but semi-trailers or trailers drawn by a truck or truck-tractor are not subject to the tax (or the sales tax which would be appropriate except for a special exemption under KRS 139.050).

Comparison to Surrounding States

Kentucky's usage tax rate is comparable to most of the states, and higher than most of its neighboring states. Figure 3-4 illustrates the use or sales tax rates of Kentucky and other states. Compared to its bordering states, only Illinois has a higher sales tax rate, and Tennessee's rate is identical to Kentucky's 6.00 percent rate. Sales or use taxes vary considerably throughout the states. Alaska, New Hampshire, and Oregon have no statewide sales or use tax. States such as California, Illinois, and Washington have rates upwards of 7.00 percent in addition to local sales or use taxes that can vary from an additional .5 to 1.25 percent.

Figure 3-4:



Change and Reform Options

Weight Distance Tax

Kentucky is one of four remaining states (Kentucky, New Mexico, New York and Oregon) that utilize the weight distance tax as a source of Road Fund revenue. Kentucky's weight distance tax applies to motor carriers with a "combined licensed weight in excess of fifty-nine thousand nine hundred and ninety-nine (59,999) pounds" [KRS 138.660]. The weight distance tax is imposed at the rate of 2.85 cents per mile. The intent of this tax is to require that heavily loaded trucks using Kentucky's highways bear

their fair share of the cost of construction and maintenance of Kentucky's highways. Table 3-7 displays the revenue generated by the weight distance tax during the 1990s. As indicated, this tax had an average growth rate of 2.9 percent per year during the past decade and produced \$75.1 million in FY00. However, the growth rate is somewhat misleading due to the phase-out of the weight distance "surtax" in FY94. Without the distortion of the phase-out, the weight distance tax had an average growth rate of approximately 6 percent for the last half of the decade. This growth rate compares favorably with an average growth rate of 4.4 percent for the entire Road Fund for the same period.

Table 3-7: Weight Distance and "Surtax" Tax Revenues for the 1990s

Fiscal Year	W.D. Tax (only)	(Millions)		Growth Rate
		Surtax	Total	
FY91	\$42.4	\$17.1	\$59.5	
FY92	\$44.4	\$17.9	\$62.3	4.7 %
FY93	\$48.4	\$19.5	\$67.9	8.9 %
FY94	\$51.9	\$ 5.4	\$57.3	-15.6 %
FY95	\$57.1	\$ 0	\$57.2	0 %
FY96	\$59.7	\$ 0	\$59.8	4.5 %
FY97	\$63.0	\$ 0	\$63.0	5.4 %
FY98	\$66.7	\$ 0	\$66.7	5.7 %
FY99	\$70.2	\$ 0	\$70.2	5.2 %
FY00	\$75.1	\$ 0	\$75.1	7.1 %

Total Average = 2.9 %

Source: Kentucky Transportation Cabinet

Motor Vehicle Registration

Motor vehicle registration fees are paid annually and are composed of two major categories of registrants generally referred to as passenger vehicles and commercial vehicles. However, commercial vehicles are further subdivided into "commercial" referring to intrastate vehicles that only operate within the Commonwealth and "proportional" commercial vehicles which are involved in interstate transit. The fee for motor vehicles which are primarily designed to carry passengers (passenger cars, taxicabs, airport limousines and U-Drive-Its) and/or vehicles with a weight of 6,000 or less have a registration fee of \$11.50. All other vehicles (6,000 +) are classified as commercial vehicles and the registration fee for these vehicles is based upon the weight of the vehicle (Table 3.9). As shown in Table 3-8, passenger motor vehicle registration fees totaled approximately \$23.5 million for FY00 while commercial vehicle (intra-state vehicles) registration fees produced \$20.6 million and the "proportional registration fee" vehicles (for vehicles involved in interstate commerce) produced \$34.2 million for the Road Fund. Combined, these three registration fee sources produced \$78.3 million or approximately 7.4 percent of total Road Fund revenues in FY00. Like other Road Fund taxes, registration fees are a relatively inelastic revenue source. As indicated, registration

revenue growth has averaged 3.8 percent for the 1990 while personal income, as previously noted, has grown at an average rate of 5.5 percent.

Table 3-8: Motor Vehicle Registration Fees for the 1990s

(Millions)					
Year	Passenger*	Commercial**	Proportional**	Total	% Growth
FY91	\$22.5	NA	NA	NA	
FY92	\$22.9	\$16.5	\$18.7	\$58.1	NA
FY93	\$23.1	\$17.0	\$20.3	\$60.3	3.8 %
FY94	\$23.5	\$17.6	\$21.3	\$62.4	3.5 %
FY95	\$23.4	\$18.0	\$22.1	\$63.5	1.8 %
FY96	\$23.4	\$18.3	\$25.6	\$67.3	6.0 %
FY97	\$23.3	\$18.8	\$23.6	\$65.7	-2.4 %
FY98	\$23.6	\$19.5	\$25.7	\$68.8	4.7 %
FY99	\$23.4	\$20.5	\$29.5	\$73.4	6.7 %
FY00	\$23.5	\$20.6	\$34.2	\$78.3	6.6 %

Average % Increase = 3.8 %

* The numbers in this column represent the Road Fund's share of passenger vehicle registration fees. Of the annual \$15.00 fee, \$11.50 goes to the Road Fund, \$3.50 goes to the County Clerk and \$.50 is for a reflector fee.

** These registration fee numbers only include the state's portion or 70% of total truck fees as 30% of truck registration fees go to local governments.

Source: Kentucky Revenue Cabinet and Governors Office for Economic Analysis, Office of State Budget Director, Kentucky Quarterly Economic & Revenue Report, July, 2000.

Table 3-9: Commercial Vehicle Registration Fee Structure

Declared Gross Weight of Vehicle And Any Towed Unit	Registration Fee
6,001- 10,000	\$ 24
10,001-14,000	\$ 30
14,001-18,000	\$ 50
18,001-22,000	\$ 132
22,001-26,000	\$ 160
26,001-32,000	\$ 216
32,001-38,000	\$ 300
38,001-44,000	\$ 474
44,001-55,000	\$ 544
55,001-62,000	\$ 882
62,001-73,280	\$1,125
73,281-80,000	\$1,260

Source: KRS 186.047 (3)

Special Provisions and Tax Expenditures

Several special provisions have been enacted which limit the application of the graduated fee schedule to certain truck owners. Included are special exemptions/provisions for agriculture, school vehicles, churches, wrecker cranes, forest product transporters, among other minor exemptions. The Department of Vehicle Registration is also permitted to engage in negotiations for the collection of “proportional” registration fees for vehicles engaged in interstate commerce or a combination of interstate and intrastate commerce. Such agreements are based on miles traveled or other equitable approaches. This provision [KRS 186.050 (13)] is the basis for Kentucky’s participation in IRP.

Interstate Commerce Registration Fees

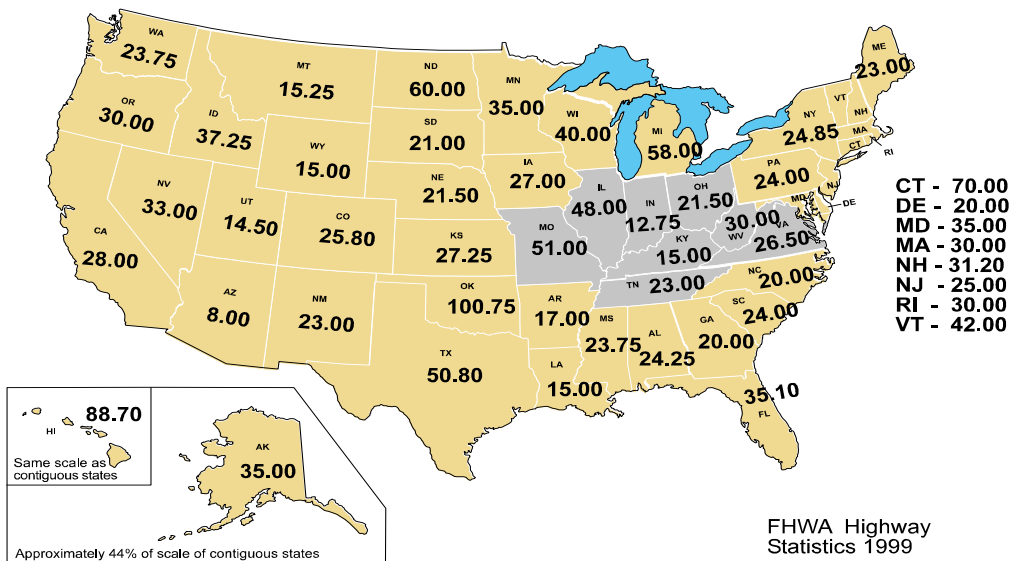
Section 4 of the 1991 ISTEA legislation, in addition to requiring state participation in IFTA, required that states participate in the International Registration Plan (IRP) by September 30, 1996. IRP establishes standards for commercial vehicle registration and apportionment of registration fees and taxes for the participating states. The IRP evolved from research initiated by the American Association of Motor Vehicle Administrators in 1968. A pilot “IRP like” arrangement was initiated in 1973 and expanded to 47 jurisdictions (states and two Canadian providences) by 1994. With the ISTEA legislative mandate, all states and the District of Columbia had joined IRP by 1996. Several Canadian provinces have joined the states as members of IRP. IRP requires carriers (persons, firms, or corporations involved in the transport of freight or passengers) to register in a base state and report miles traveled and weight carried (previous year) in each IRP participating jurisdiction. The base state, in turn, calculates and collects the registration fees for all IRP members and disburses the funds to the respective states based on their respective fee or registration structure. Operationally, the IRP has a repository, IRP, Inc., which is a subsidiary of American Association of Motor Vehicle Administrators (AAMVA) located in Arlington, Virginia, which was the organization that originally conducted the research and analysis for the development of the streamlined, international carrier registration process.

Comparison to Surrounding States

Figure 3-5 shows the registration fee rates for a typical automobile in Kentucky and its surrounding states. Only Indiana has a lower overall fee for vehicle registration, states bordering Kentucky have substantially higher fees. In fact, only Indiana and Arizona have a lower registration fee than Kentucky nationwide. Several states have registration fees upwards of \$60 to \$70. The national average for a state’s registration fee for a typical passenger vehicle is \$31.61.

Figure 3-5:

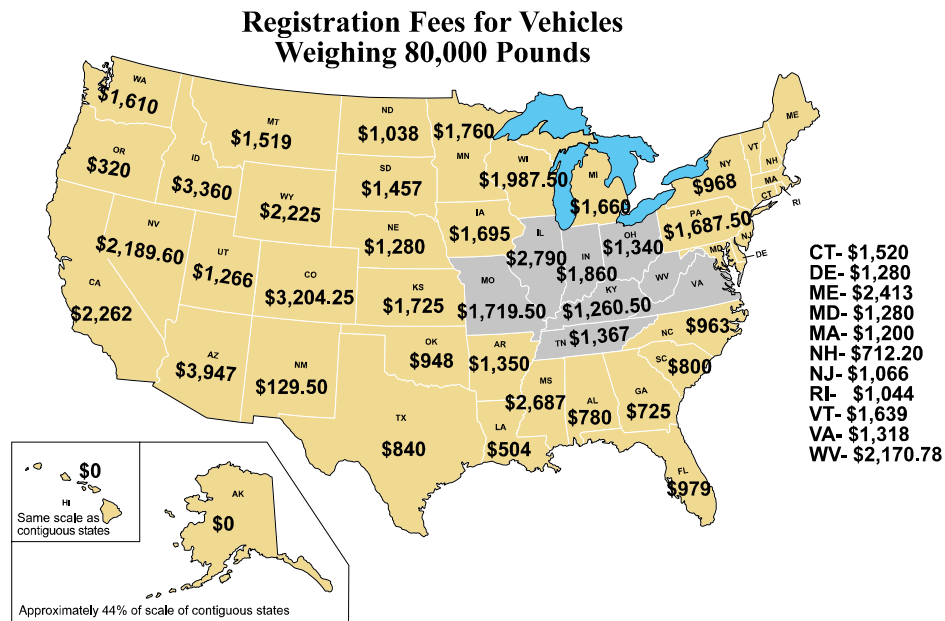
Vehicle Registration Fees: 1998 Fees in Dollars for a Typical Automobile



As discussed earlier, the registration rate in Kentucky for commercial vehicles weighing between 73,281 to 80,000 pounds is \$1,260.50. Figure 3-6 depicts registration rates for this category of vehicles that are commonly referred to as tractor trailers or eighteen-wheelers for Kentucky and other states. Kentucky has the second lowest rate of any state in the immediate region. West Virginia's registration rate is slightly lower (\$1,131.25) than Kentucky's fee. However, the "total fee" of \$2,170.78 indicated by Figure 3-6 includes a property tax component for all vehicles registered to operate in that state and is not, technically, a registration fee. Under the IRP agreement, carriers that maintain an established place of business in more than one jurisdiction can choose the jurisdiction in which they register their vehicles. The definition of an "established place of business" requires an address of a physical location that they either own, rent or lease, have a phone publicly listed, have a person or persons conducting the fleet registrants business and be able to make records available for audit at that location. The broad definition of "established place of business" permits carriers to take advantage of this flexibility by basing their vehicles in the jurisdiction that offers them the best tax advantage.

It should be emphasized, however, that if carriers report actual miles driven by state, the total fees due on an IRP registration would be the same regardless of where the vehicle is based. Carriers could avoid full payment of registration fees by making high mileage estimates for travel in low rate states. Such reporting could cause states to get less registration revenue than they would have if the carrier had reported actual mileage. Insuring the validity of mileage reporting is, therefore, an important aspect of the IRP system.

Figure 3-6: Commercial Registration Rates



Change and Reform Options

Motor Vehicles Operators License

Motor vehicle operator's license fees generated \$5.7 million for the Road Fund in FY00 (see Table 3-10). There are approximately 2.8 million licensed drivers in Kentucky and about 1.25 million licenses (of all types) were issued in 2000. The \$8 basic operators license fee covers a four-year period for new or license renewals. Other categories of operator's licenses include instruction permits (\$2 plus \$4 for preparing and acknowledging the permit) and \$6 for duplicate licenses. Motorcycle operators license fee is \$12 for new or renewals. Other variations of the license fee structure have also been enacted to accommodate special categories of licenses [KRS 186.531]. The Administrative Office of the Courts (AOC) has responsibility for collecting license fees from the circuit clerks for issued operator's license and depositing such funds in the Road Fund. The Cabinet is responsible for the reconciliation of receipts as appropriate.

Table 3-10: Motor Vehicle Operator's License Revenue for the 1990s*
(Millions)

Year	Receipts	Percent Change
FY 91	\$5.0	-6.0 %
FY 92	\$5.2	3.6 %
FY 93	\$5.0	-3.8%
FY 94	\$5.4	6.7 %
FY 95	\$5.2	-3.5 %
FY 96	\$5.1	-1.2 %
FY 97	\$5.4	4.8 %
FY 98	\$5.2	-2.1 %
FY 99	\$5.4	3.0 %
FY 00	\$5.7	5.3 %

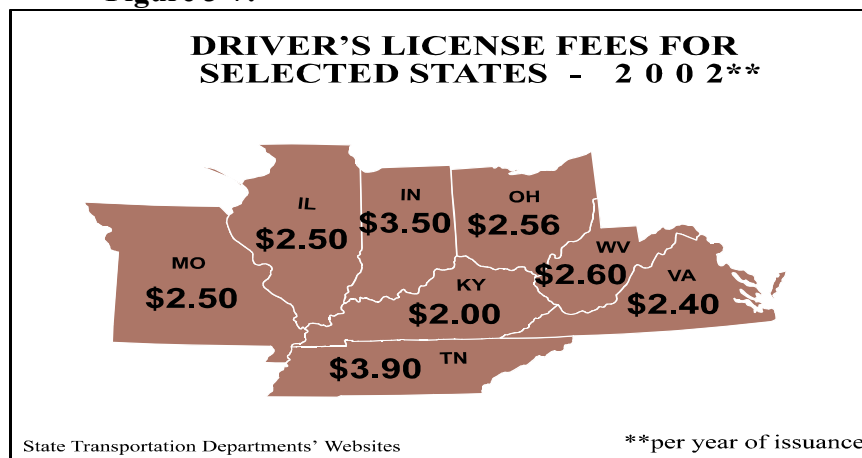
* The \$8 motor vehicle operators license is divided as follows: \$4.24 for the Road Fund; \$1.00 for the cost of the ID picture; \$.50 for driver education; and \$.50 for the county where the driver is licensed; and \$1.76 for the Administrative Office of the Courts. Consequently, although the \$8 fee goes to the Road Fund, the receipts are divided as indicated.

Source: Governor's Office for Economic Analysis, Office of State Budget Director, Kentucky Quarterly Economic & Revenue Report, July, 2000.

Comparisons to Surrounding States

The collection of monies to license drivers varies immensely among the states. The fees charged by Kentucky and our bordering states appear in Figure 3-7 below. The fees charged by Kentucky are slightly lower than all of our neighbors. Kentucky's fees are substantially lower than those of Indiana and Tennessee.

Figure 3-7:



Summary

This Chapter provided a description and analysis of Kentucky's major Road Fund tax sources. The vehicle usage and motor fuels taxes account for approximately 80 percent of Kentucky's Road Fund tax revenues with motor vehicle registration fees, the weight distance tax, operators licenses and fees, and miscellaneous sources contributing the rest of the Road Fund tax revenue. The usage tax has experienced rapid growth during the past decade due to its greater elasticity while the lower elasticity of motor fuels taxes has contributed to the diminished role of this tax source in financing Kentucky's system of highways and roads.

In reviewing the various revenue sources, it is clear that Kentucky's Road Fund is supported by a complex array of taxes and fees, revenue administrative structures and revenue collection processes. Like other states, it appears that Kentucky's major Road Fund tax rate and base structures evolved incrementally in response to Road Fund revenue inadequacies. Also, Kentucky's Road Fund revenue structure seems to have evolved without careful consideration of how the costs of Kentucky's public highway and road system should be allocated to insure an equitably financed transportation system. Likewise, the incremental evolution did not permit due consideration to the tax principles of administrative efficiency, simplicity, competitiveness.

. Much of the Road Fund's revenue collection process complexity results from the fact that the interstate commercial carrier portion of Kentucky's Road Fund tax base is shared with other states. As a result, the Road Fund's registration fee and motor fuels tax collection processes require cooperative efforts with other states and multi-state jurisdictions (such as IRP and IFTA). While these multi-state efforts simplify compliance for commercial carriers and reduce administrative costs for the states, they pose audit and reconciliation challenges for the states involved.

While the major reason for the unique administrative complexity of Road Fund taxes emanate from the shared tax base issue, the Commonwealth has contributed to the administrative complexity for the Revenue Cabinet by enacting special exemptions and legislating a series of essentially "self reporting" processes for the collection of usage taxes and for administering off-road fuel tax exemptions. While such provisions were, presumably, enacted to deal with perceived equity and efficiency concerns, they have complicated the compliance capabilities of the Revenue Cabinet.

Beyond these concerns, effective management, monitoring, and tax policy development regarding the Road Fund revenue system is complicated by the shared state organizational responsibilities that have historically existed for the Road Fund. More specifically, Road Fund tax assessment and collection responsibilities are split between Kentucky's Revenue and Transportation Cabinets. As a result, no single Cabinet level organization or unit is responsible for monitoring tax revenue receipts, revenue collection and audit procedures, developing new, modernized Road Fund tax policy initiatives, and managing Kentucky's participation in multi-state assessment and collection groups (such as IRP and IFTA).

Like other states, opportunities exist for improving the equity, simplicity, competitiveness, and administrative efficiency of Kentucky's Road Fund tax structure and administrative processes. However, also like the other states, the main issue facing state policy makers and Road Fund tax and revenue analysts is the continuing challenge of insuring that the Road Fund has sufficient resources to meet Kentucky's transportation infrastructure investment needs.

Chapter 4: Observations and Suggestions

The Kentucky Road Fund was established in 1914 to provide for the financing of the development, maintenance, and operation of Kentucky's statewide transportation system. The structure and composition of the Road Fund has been periodically adjusted to reflect changes in transportation service demands, taxpayer attitudes regarding acceptable taxing methods, and evolving financing options. For the last half of the 20th century, motor fuels and usage taxes have provided the financial foundation for the Commonwealth's Road Fund. Other tax and funding sources have included various registration fees, licenses, and special taxes such as the weight distance tax.

As indicated, the purpose of this study was to review Kentucky's Road Fund financing structure and recent trends in Road Fund tax policy of the various states. From those reviews and assessments, a series of observations are provided and suggestions made for consideration in the future. The observations and suggestions are described in separate sections that follow.

Observations:

Based on the review of the tax and revenue structure of Kentucky's Road Fund, the following observations are offered:

- *Road Fund Tax Structure Issues*

Overall, Kentucky's major transportation tax and financing issue continues to be how changes can be made in the Road Fund base, rate, or administrative structure to insure long-term Road Fund adequacy. While periodic concerns are expressed regarding other tax issues such as competitiveness, simplicity, fairness and administrative efficiency, Kentucky, like other states, is continually challenged to adequately meet its transportation financing needs. Historically, when additional funding was needed to finance Kentucky's transportation system, Kentucky would increase tax rates, adjust tax bases, adopt new taxes, or attempt to increase revenue through administrative process changes. Such actions were similar to those of other states as indicated by the NCSL and survey data reported in Chapter 2. The adequacy problem that Kentucky shares with other states appears to be principally related to the slow growth or "inelasticity" of one of its major revenue sources – the motor fuels tax.

- *Road Fund Structure and Administrative Process Complexity*

Kentucky's Road Fund tax and fee revenues are obtained from multiple sources including motor fuels taxes, usage taxes or fees, a weight distance tax and a variety of special registration and licensing sources. The taxation of interstate commercial carriers and trucks (fuels taxes, and registration and licensing fees) is complicated due to the need to collect and allocate such

taxes to the various states based on state specific tax rates and structures. Fortunately, major steps have been taken to simplify and coordinate such collection and allocation processes for motor fuels through participation in IFTA and collecting and allocating registration fees by Kentucky's participation in the IRP. Kentucky's Road Fund collection processes also involve coordinated state and local government efforts to collect driver and vehicle licensing fees.

The financial management of Kentucky's Road Fund is complicated by the shared responsibilities of the Revenue and Transportation Cabinets for assessing, collecting and auditing Road Fund revenues. Given the complexities of the Road Fund revenue assessment, collection and verification/auditing process (both within the state and across states), it might be useful to convene an interagency Road Fund finance work group on a quarterly basis to review tax and revenue policy, and collection and compliance issues. The establishment of such a group would insure that the Commonwealth has a group of professionals from both Cabinets who are fully conversant with the Road Fund and its internal and external tax administration responsibilities and relationships. The group could also serve as a study group who could continuously be aware of and analyze the impact of changes in intergovernmental and interstate agreements and tax changes that may impact Kentucky's Road Fund, and, therefore, deserves policy and operational attention.

- *Legislative Changes and Tax Accountability*

The recent passage of legislation that altered the process for determining the "retail price" for vehicle sales and determining eligibility for the "off road" fuel tax exemption has limited the ability of the Cabinets to effectively audit and insure taxpayer compliance with motor vehicle usage and motor fuels tax law. Specifically, the approval of the "affidavit" process for determining the "retail price" for vehicles reduces the ability of the Revenue Cabinet to determine the validity of the reported retail price. Also, the approval of a certification process to replace the "request for refund" process for verifying eligibility for the "off-road" motor fuels exemptions has limited the ability of the Revenue Cabinet to properly audit these two major revenue sources. Whether these changes have reduced compliance is worthy of study and possible corrective action.

- *The Need for A Comprehensive Review of Kentucky's Road Fund Tax Structure*

As indicated by the NCSL data and the survey of Transportation Cabinets and Departments, state Road Fund tax reforms or structural changes in the 1990s have been dominated by legislative attempts to manage the habitual problem of Road Fund revenue adequacy. The majority of such legislative actions

involved incremental Road Fund tax increases involving base, rate or administrative adjustments. Kentucky has also experienced Road Fund adequacy problems in recent decades and has responded by making periodic adjustments to Kentucky's Road Fund tax and fee structure.

Due to the focus on the adequacy issue, little attention has been directed to other tax reform or change issues including simplicity, fairness, administrative efficiency and competitiveness. As noted in Chapter 2, few of the states that responded to this studies' survey, indicated that the tax changes enacted in the 1990s were driven by goals of enhancing their state's Road Fund tax structure relative to the other tax principles. It is difficult to understand the trade-offs involved in new tax policy initiatives without a comprehensive study of the Road Fund tax structure.

Unfortunately, major study efforts such as the 1995 Tax Commission on Tax Policy or the more recent report by the Sub-Committee on Tax Policy Issues of the Kentucky General Assembly devoted limited attention to Road Fund tax policy issues. Prior to enacting major Road Fund changes, it would be useful to establish a Road Fund study group that could consider and analyze the changing Road Fund tax environment, unique tax principle issues associated with the Road Fund, and other issues that Kentucky will face as it attempts to update and modernize the taxes relied upon to finance Kentucky's transportation system for the future.

Suggestions

Given Kentucky's current Road Fund tax structure described in Chapter 3, consideration may be given to the following suggestions to enhance the adequacy, equity, administrative efficiency, or competitiveness of Kentucky's Road Fund tax structure:

Motor Fuels Taxes

- Consideration might be given to adjusting motor fuels rates to equalize rates with surrounding states as part of a broader based Road Fund tax reform initiative.
- Consideration might be given to studying the impact of changing the "point of taxation" of motor fuels as a means of further reducing the misuse of the off-road exemption.
- Consideration might be given to "sun setting" and periodically reviewing the various exemptions that have been granted from the motor fuels taxes over the past several decades.

- Consideration might be given to closer monitoring and reviewing of the effectiveness of multi-state motor fuels tax collections initiatives associated with IFTA.
- Consideration might be given to implementing a "dyed fuel monitoring and enforcement effort" to reduce the misuse of off-road fuels and, potentially, increase Road Fund motor fuels revenues.
- Consideration might be given to modifying the recently implemented certification process for administering the off-road motor fuels exemption as it severely limits the auditing and accountability processes of the Revenue Cabinet.
- Consideration might be given to adopting a motor fuels tax indexing system or process similar to the one employed in Florida to enhance the elasticity of this major Road Fund revenue source.

Motor Vehicle Usage Tax

- Consideration might be given to modifying legislation passed during the 1998 session of the Kentucky General Assembly (HB 74) that permitted the use of an affidavit to establish the "retail price" for motor vehicle sales. While motivated by concerns regarding overvaluing certain motor vehicle sales, the affidavit process creates compliance and verification problems for the Revenue Cabinet.
- Consideration might be given to "sun setting" and reviewing the various special usage tax exemptions that have been enacted to evaluate the current fairness and appropriateness of such exemptions or tax expenditures.
- Consideration might be given to eliminating the usage tax that Kentucky currently applies to trucks and commercial carriers to eliminate competitiveness issues that the tax creates.

Weight Distance Tax

- Consideration might be given to replacing the weight distance tax with other revenue sources to better align Kentucky's tax structure with other states as part of a broad based reform initiative.

Motor Vehicle Registration Fees

- Consideration might be given to more aggressive follow-up on the IRP registration apportionment processes on Kentucky's registration revenue.

- Consideration might be given to raising registration fees as part of an overall Road Fund reform initiative.

Motor Vehicle Operators Licenses

- Consideration might be given to raising motor vehicle license fees as a part of a reform effort as Kentucky's fees are much lower than surrounding states and national averages.

This study reviewed Kentucky's Road Fund tax structure, recent changes in Road Fund taxes of the various states, and possible Road Fund tax adjustments that might be considered. It was observed that while some Road Fund tax changes enacted during the last decade involved efforts to enhance the simplicity, competitiveness and administrative efficiency of Road Fund taxes and fees, concerns over Road Fund adequacy dominated tax policy changes in the 1990s. Also, while participation in the IRP and IFTA have assisted Kentucky and other states manage the complexities of administering the equitable assessment and collection of state taxes from interstate carriers, Road Fund tax complexity remains a significant concern and deserves further attention.

It is also apparent that tax law changes have unanticipated impacts or repercussions. For example, while Kentucky's use of affidavits for establishing the retail price of motor vehicles may enhance the fairness of the usage tax for certain taxpayers, it reduces the ability of the Revenue Cabinet to insure overall tax law compliance and equity. Likewise, independent efforts to deal with tax issues can exacerbate other problems. For example, efforts to enhance the competitiveness of Kentucky's trucking industry by eliminating the usage tax could increase Road Fund adequacy concerns if not offset by other revenue generating initiatives. Such indirect and crosscutting impacts of incremental tax changes indicate the need for periodic, comprehensive reviews of Kentucky's Road Fund structure and administrative processes.

Such a broad based review could anticipate and evaluate such crosscutting impacts and provide a "blueprint" for restructuring Kentucky's Road Fund. Once established, such a blueprint could be implemented comprehensively or incrementally over time. Such a review could also assess how specific tax adjustments might impact the overall fairness, adequacy, competitiveness and administrative efficiency of Kentucky's Road Fund tax structure. Hopefully, this study will provide the foundation for such a comprehensive review of Kentucky's Road Fund tax and fee structure.

References

1. Chellgren, Mark, "Pay-as-you-go Policy Lets Road Work Continue," Courier Journal, July 4, 2001, Louisville, Kentucky.
2. Commonwealth of Kentucky, Tax Expenditure Analysis: Fiscal Years 2000-2002, October, 1999.
3. Council of State Governments, Road Fund Tax Evasion: A State Perspective, Lexington, KY: Council of State Governments, 1996.
4. FHWA, Federal Highway Statistics, Washington, D.C.: U.S. Government Printing Office, various years.
5. FHWA, "Price Trends for Federal-aid Highway Construction."
6. Fox, William, Report to the Sub-Committee on Tax Policy Issues: Kentucky General Assembly, February, 2002.
7. Governors Office for Economic Analysis, and Kentucky Revenue Cabinet, An Examination of Kentucky's Revenue System: Does it Work?, unpublished report, Frankfort, KY: December, 2000
8. National Conference of State Legislatures, State Tax Actions, 1990 to 2000.
9. Office of the State Budget Director, Governors Office for Economic Analysis, Kentucky Quarterly Economic and Revenue Report, FY 2000, July, 2000
10. Osborne, Monica L., Pigman, Jerry G., and Thompson, Eric, 2000 Highway Cost Allocation Update: Technical Report, Lexington, KY: Kentucky Transportation Center, University of Kentucky, 1998.
11. Wilbur Smith Associates, Kentucky Road Fund Adequacy Report, Frankfort, Kentucky Transportation Cabinet, 1997.
12. Zimmer, et.al., Kentucky's Road Fund Tax Structure, Kentucky Transportation Center, 1999, unpublished report.

Appendix A: State Survey

KTC LOGO

State Respondent's Title:

We sincerely thank you for your time in filling out this survey and assisting us with this research of how states pay for their roads. The results of this research will be made available to you in the future.

CSG LOGO

State Road Fund Tax Policy Survey

1. Does your state have revenue sources that are dedicated for paying costs associated with the highway system, e.g. a separate Road Fund? _____
2. Please indicate the permitted uses of these dedicated funding sources.

____ All Highway Costs
____ Highway Construction
____ Maintenance/Operation Activities
____ Administration
____ Revenue Sharing with Local Governments
____ Debt Payments
____ Vehicle Law Enforcement Activities
____ Tax Collection/Compliance Activities
____ Other (Please describe briefly) _____

3. If your state has a dedicated road fund, what are the principal sources of revenues for this fund? (Rank order all that apply with 1 being the largest source of revenues, and please indicate the percentage of total road fund revenues that the source contributes.)

<i>Rank</i>	<i>%</i>	
____	____	Motor Fuel Taxes
____	____	Diesel Fuel Taxes
____	____	Motor Vehicle Usage or Sales Tax
____	____	Vehicle Registration Fees / Driver License Fees
____	____	Carrier/Trucking Use or Weight-Distance Tax
____	____	Vehicle Safety and Emissions Inspection Fees
____	____	Motor Vehicle Property Tax
____	____	Other (Please describe briefly) _____

4. Have there been changes and modifications of tax statutes in your state's road fund during the 1990s? YES _____ NO _____

5. In what years did these changes occur? (Check all that apply.)
- 1990 _____ 1991 _____ 1992 _____ 1993 _____ 1994 _____ 1995 _____
- 1996 _____ 1997 _____ 1998 _____ 1999 _____ 2000 _____

6. For each change in tax policy enacted in the 1990s, please complete the following tables. For each year indicate the type of change in tax policy (For example, a one-cent increase per gallon on motor fuels). Impact should ideally be reported with a percentage change, increase or decrease, on a per year basis due to the tax change. Impact can also be reported in non-monetary terms, such as increased administrative efficiency, if necessary. In the purpose for change column, please check all that apply. (The numerical representations in this section are described below.) An example is provided below.

Purpose of Change

1	2	3	4	5	6
---	---	---	---	---	---

- | | |
|------------------------|---------------------------------------|
| 1. Increase Revenue | 4. Increase Competitiveness |
| 2. Decrease Revenue | 5. Increase Equity of Tax |
| 3. Increase Simplicity | 6. Increase Administrative Efficiency |

Example: Diesel Fuel Tax:

Year	Type of Change	Purpose of Change						Impact
		1	2	3	4	5	6	
1990	2 cent increase per gallon	✓						5% increase per year
1991	Changed collection point from supplier to retailer	✓					✓	2% increase per year

MOTOR VEHICLE FUEL TAX:

<i>YEAR</i>	Type of Change	<i>Purpose of Change</i>						<i>Impact</i>
		1	2	3	4	5	6	
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

DIESEL FUEL TAX:

<i>YEAR</i>	Type of Change	<i>Purpose of Change</i>						<i>Impact</i>
		1	2	3	4	5	6	
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

MOTOR VEHICLE USAGE OR SALES TAX: (title of tax depends on state)

<i>YEAR</i>	Type of Change	<i>Purpose of Change</i>						<i>Impact</i>
		1	2	3	4	5	6	
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

CARRIER/TRUCKING USAGE OR WEIGHT DISTANCE TAX:

YEAR	Type of Change.	1	Purpose of Change					Impact
			3	4	5	6		
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

VEHICLE REGISTRATION FEES:

<i>YEAR</i>	Type of Change	<i>Purpose of Change</i>						<i>Impact</i>
		1	2	3	4	5	6	
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

VEHICLE PROPERTY TAX:

<i>Year</i>	Type of Change	1	<i>Purpose of Change</i>					<i>Impact</i>
			2	3	4	5	6	
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								

7. Finally, do you anticipate any changes in the near future for your state's road fund?
If so, what might these changes be and what would be the goal of these future changes?
